REPORT DOCUMENTATION PAGE

Form Approved OMB No. 074-0188

1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE	3. REPORT TYPE AND DATES COVERED
	December 1994	Final report, December 1994

4. TITLE AND SUBTITLE
Information Support for Environmental Management, Legacy Data Capture, and Data Assessment (Volume III)

5. FUNDING NUMBERS
US Army Corps of Engineers
Cooperative Agreement
DACA76-93-2-0001

6. AUTHOR(S)
Coalition for International Environmental Research and Assistance

7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES)

Coalition for International Environmental
Research and Assistance
12529 White Drive
Fairfax, VA 22030

8. PERFORMING ORGANIZATION REPORT NUMBER
ISEM Final Report, Vol. III
CIERA/TEC
PSL-94/74

9. SPONSORING / MONITORING AGENCY NAME(S) AND ADDRESS(ES)

SERDP
901 North Stuart St. Suite 303
Arlington, VA 22203

10. SPONSORING / MONITORING AGENCY REPORT NUMBER

N/A

11. SUPPLEMENTARY NOTES
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12a. DISTRIBUTION / AVAILABILITY STATEMENT	12b. DISTRIBUTION CODE
Approved for public release: distribution is unlimited	A

13. ABSTRACT ***(Maximum 200 Words)***

Reliable data are difficult to gather in a desert environment due to the extreme spatial and temporal distribution of the resource base. However, the CIERA/TEC team has been able to build on the unique 80-year record of the Jornada Experimental Range (JER). Further, the proximity of the JER to the major military installations of WSMR and Ft. Bliss represents an opportunity for baselining the decision support system in a neighboring system of semi-arid land habitats that has been untouched by military activity, although subjected to a representative set of natural disturbances such as drought, and anthropogenic disturbances such as livestock ranching. Such a baseline provides a foundation for achieving sustainability, because it produces a standard by a which a manager may:

- monitor change over an ecological time frame;
- spatially position (georeference) fragmented data sets;
- connect fragmented data sets in a time series that represents change;
- prioritize research necessary to fill in critical gaps in data with either new data or well-founded theory; and

develop an effective monitoring system to sense ecosystem change over an appropriate time scale.

14. SUBJECT TERMS
JER, Environmental Management, Legacy Data Capture, Data Assessment, SERDP

15. NUMBER OF PAGES
204

16. PRICE CODE
N/A

17. SECURITY CLASSIFICATION OF REPORT	18. SECURITY CLASSIFICATION OF THIS PAGE	19. SECURITY CLASSIFICATION OF ABSTRACT	20. LIMITATION OF ABSTRACT
unclass	unclass	unclass	UL

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89)
Prescribed by ANSI Std. Z39-18
298-102

19980817 152

26C - 1994

Global sustainability through
innovative environmental technologies

Final Report
Volume III

Information Support for Environmental Management, Legacy Data Capture, and Data Assessment

December, 1994

Prepared for the

Strategic Environmental Research and Development Program Office
901 North Stuart Street, Suite 303
Arlington, Virginia 22203

Under US Army Corps of Engineers
Cooperative Agreement # DACA76-93-2-0001

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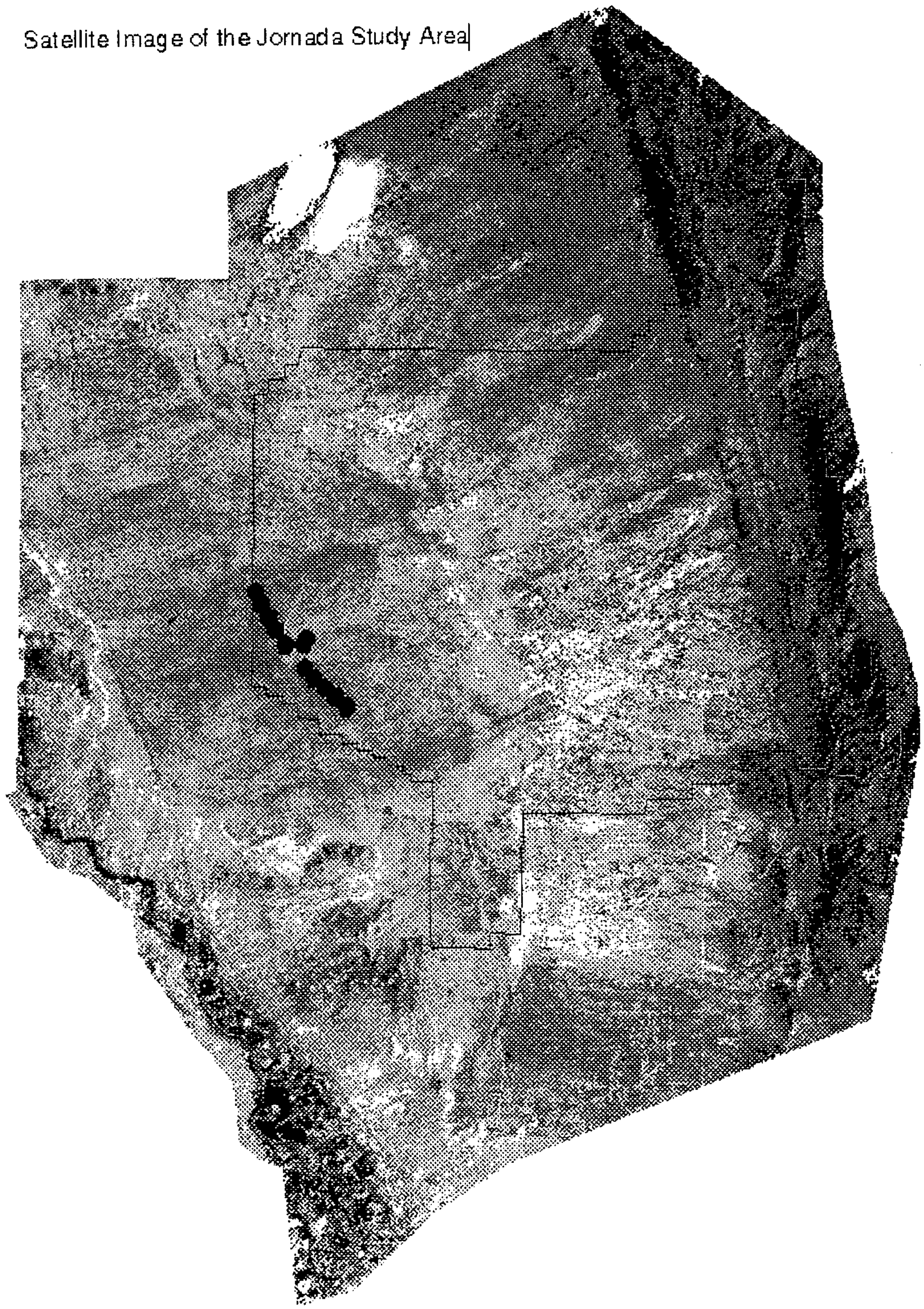
Satellite Image of the Jornada Study Area



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1.0 Introduction

The *Information Support for Environmental Management, Legacy Data Capture, and Data Assessment* document, which consists of three volumes, reports the progress of each activity associated with the Legacy Data Capture and Data Assessment (Phase I) of the Information Support for Environmental Management Project, U.S. Army Corps of Engineers Cooperative Agreement #DACA76-93-2-0001. Volume III of the document (this volume) provides further information about the Conceptual Framework for Arid-Land Characterization activity discussed in Volume I, specifically the analysis of ground-collected data provided by the Jornada Experimental Range (JER) and other Coalition for International Environmental Research and Assistance (CIERA) team members by Ohio University (OU).

Section 2.0 of this volume provides an overview of the additional tasks to be performed for the data analysis; a description of the hardware, software, and testbeds used for accomplishing the tasks, as applicable; and the procedures used to execute the tasks. *Section 3.0* details, for each task of the data analysis, the results obtained from executing the procedures listed in Section 2.0. *Section 4.0* provides a summary of the additional tasks performed for the data analysis. *Section 5.0* provides a discussion of follow-on activities to be performed for this project. *Section 6.0* is a list of all of the acronyms and abbreviations used in this volume. *Appendices A-D* contain information vital to understanding this volume.

2.0 Approach

2.1 Conceptual Framework for Arid-Land Characterization

The analysis of ground-collected data was accomplished by performing analysis in three major areas:

- Habitat Classification/Analysis
- Species Diversity and Associations
- Distribution of Lizards

The data used to analyze habitat classification was extracted from a paper by Hennessy et al. (1983)[1]. This paper contained data on the frequency distribution of species for transects in the grazed (1935, 1950, 1955, 1980) and exclosure areas (1935 and 1980). These data sets were entered and the following analyses were performed to determine changes in plant communities over time.

a. An Unweighted-Pair Group Mean Analysis (UPGMA) cluster analysis was done on the data to determine similarity of stands in time and space.

b. An ordination was done on the data using Principal Components Analysis (PCA) and Detrended Correspondence Analysis (DCA).

c. Species richness and two diversity indices (Shannon-Weiner and Simpson) were calculated from these data.

The data used to analyze species diversity and associations was obtained for the New Mexico State University (NMSU) College Ranch Long-Term Ecological Research (LTER) plots from a paper by Cornelius et al. (1991). The following analyses were performed.

a. A UPGMA cluster analysis was done on the summary data for 1982-1984.

b. Ordinations were done on the data using both PCA and DCA.

c. Species richness and two diversity indices (Shannon-Weiner and Simpson) were determined for each plot.

The data used to analyze lizard distribution is raw capture data on lizard abundances from the Jornada transect.

---

[1]See Appendix A for complete references.

2.1.1 Habitat Classification/Analysis

2.1.1.1 *Introduction*

Vegetation was analyzed along two belt transects that were 30.5 cm in width and totalling 2,188 meters in length on the JER (Hennessy et al., 1983). In 1935, these transects were divided into 7,180 contiguous 0.09 m^2 plots and the vegetation was mapped. An exclosure was built in 1933 to prevent grazing in a 259 ha area; in 1935 and 1980, vegetation was analyzed in dune and interdune areas on 5,680 contiguous 0.09 m^2 plots. The grazed transect was mapped in four years on 1,500 of the contiguous 0.09 m^2 plots. This area was divided into a mesquite-dominated and a grassland-dominated area based on the vegetation occurring there in 1935. The purpose of this original investigation was to determine the effect of grazing on the species composition of plant communities. The effect of mesquite on grassland species composition was determined.

In the present analysis, these data were examined by means of cluster analysis and ordination techniques to determine what changes occurred in the composition of these plant communities in the exclosure and grazed areas in time and space.

2.1.1.2 *Procedures*

Species richness, heterogeneity, and evenness in community types were analyzed from the frequency data provided in Appendix B. Heterogeneity was determined using two indices, the Simpson Diversity Index and the Shannon-Weiner Diversity Index. The evenness aspect of diversity of species was determined using the Pielou J Index (Kovach, 1993). The multivariate statistical package (MVSP) was used to do a UPGMA cluster analysis on these frequency data to determine how closely related the different community types were in time and space. Ordinations of these data were carried out using PCA and DCA to determine the relationships between community types in time and space (Kovach, 1993). The analysis data is provided in Appendix B.

A cluster analysis was performed on the Jornada LTER transect based on plant cover and the structural characteristics of the plants comprising the cover. Plant cover by species was measured at 91 stations along this transect. Cover was divided into 10 structural classes based on their method of carbon dioxide assimilation (i.e., whether they are annual or perennial) and forage class. These classes are shown in Table 1.

Table 1. Variables Used in Cluster Analysis

Variable #	Carbon Assimilation	Annual (A)/ Perennial (P)	Forage Type
1	C_3	Annual	Forb
2	C_3	Perennial	Forb
3	C_3	Perennial	LF-S
4	C_3	Perennial	Semi-shrub
5	C_3	Perennial	Shrub
6	C_4	Annual	Forb
7	C_4	Annual	Grass
8	C_4	Perennial	Forb
9	C_4	Perennial	Grass
10	CAM	Perennial	ST-S

The cluster analysis was done using a FORTRAN program modified from the algorithms published in Hartigan (1975) and expanded using the generalizations of Lance and Williams (1967). Standard euclidean distance was used as a distance measure. Data were not standardized so that total cover might be utilized during the cluster analysis. The flexible strategy of agglomeration was used with a beta value of 0.25 (Lance and Williams, 1967).

2.1.2 Species Diversity and Associations

2.1.2.1 *Introduction*

Plant species cover was measured from 1982-1984 along a 2.7 kilometer (km) transect on the NMSU College Ranch in the Jornada del Muerto Basin in south-central New Mexico (Cornelius et al., 1991). This transect, which was established early in 1982, extends 2700 meters (m) from a playa (ephemeral lake) in a SSW direction up the slopes of a granitic mountain (Mt. Summerford). The transect cuts across a shallow basin slope, a fan piedmont, and an alluvial fan (bajada) up to the base of the mountain. The elevation ranges from 1310 m at the playa to 1410 m at the end of the transect. The early settlers described the vegetation in the Jornada del Muerto as grassland during the late 19th century and early 20th century (Dick-Peddie, 1993). Desert shrubs commonly dominate these ecosystems today, either because of climate change, overgrazing, or a combination of the two in the area (Buffington and Herbel, 1995, Cornelius et al., 1991).

The purpose of the current investigation was to determine if cluster analysis and ordination techniques could be used to separate community types using synthetic index data and whether the results would be similar to that of analyses with actual cover values. Frequency distribution of species and diversity in the various community types were analyzed using species richness, heterogeneity indices, and an evenness index.

2.1.2.2 *Procedures*

Data were collected at 91 sample stations at 30 m intervals along a 30 m line that was placed perpendicular to the transect. The percent of the line intercepted by plant canopy was measured for all species over a three-year period during late March-early April and during mid-October (Cornelius et al., 1991). These periods were used because they provided data for maximum plant cover during potential rainy seasons.

In this analysis, a large set of combined data for the total summer sample period was used (1982-1984) for transects 1-89. The data was divided into the following cover classes:

- \- = 0%
- 1 = >0 - 2%
- 2 = >2 - 5%
- 3 = >5 - 10%
- 4 = >10 - 20%
- 5 = >20 - 40%
- 6 = >40 - 100%

This data is provided in Appendix C. Species richness, heterogeneity, and evenness were analyzed from the plant cover class data provided in Cornelius et al. (1991). Heterogeneity of species composition in transects was determined using two indices, the Simpson Diversity Index and the Shannon-Weiner Diversity Index. The evenness aspect of diversity was determined using the Pielou J Index (Kovach, 1993). The MVSP was used to perform a UPGMA cluster analysis on percent similarity data obtained from cover class values in the different transects in order to determine how the 89 sampling stations grouped into community types (Kovach, 1993). Ordinations were carried out on these data using PCA and DCA to determine the relationship of communities in space. The analysis data is provided in Appendix C.

2.1.3 Distribution of Lizards

2.1.3.1 *Introduction*

A major concern in conservation biology is the potential responses of organisms to global climate change. Given current levels of emission of greenhouse gases, most global circulation models predict an increase in average temperatures of 1.5 - 4°C. The increase in average temperature is likely to result in a profound change in the vegetation mosaic of most ecosystems.

Presently, there is a critical need for information regarding the link between animal population attributes and dynamics to habitat variables. Because of the broad scale of changes in habitat quality, it is necessary to forge a connection between animal population dynamics and landscape dynamics. Since analyses in landscape ecology often incorporate multiple layers of information, ecologists have now turned to new analytical platforms, such as Geographic Information System (GIS) and geostatistics. Therefore, there is a need to provide a spatial analysis of population patterns to enhance the landscape analyses.

The vertebrate census project conducted on the Jornada LTER control transect provides a unique opportunity to establish spatial trends in animal abundance data.

The vegetation on the Jornada LTER comprises a typical Chihuahuan desert association. Several studies have analyzed small-scale spatial gradients in the species distribution along the transect (Stein and Ludwig, 1979, Weirenga et al., 1987, Cornelius et al., 1991). The latter two studies delineated seven vegetation zones, based on changes in vegetation composition, rainfall, and soil characteristics. The vegetation zones are listed in Table 2. These zones were identified by delimiting ecotones along the transect using moving split-window boundary analysis and indirect gradient analyses.

Table 2. Vegetation Zones, Plant Associations, and Station Positions Along the Jornada LTER Control Transect (after Wierenga et al., 1987)

Zone No.	Name and Plant Association	Stations	
		Range	Number of Stations
1	*Playa* - grassland (*Panacium obtusum*)	1-7	7
2	*Playa* Fringe - shrubland (*Prosopis glandulosa*)	8-10	3
3	Lower Basin Slope - grassland (*Aristida longiseta*)	11-57	47
4	Upper Basin Slope - shrubland (*Larrea tridentata*)	58-72	15
5	Lower Piedmont Slope - grassland (*Erineuron pulchellum*)	73-81	9
6	Upper Piedmont Slope - grassland (*Bouteloua eriopoda*)	82-89	8
7	Rocky Slope - shrubland (*Ericamera lacrifolia*)	90-91	2

These vegetation categories were used to determine whether lizard species demonstrate significant associations with vegetation type or vegetation cover.

2.1.3.2 *Procedures*

2.1.3.2.1 Sample Protocol

Ninety sample stations were positioned at 30 m intervals along the transect. At each station, a large can was placed in a pit and arranged in such a manner that the lip of the can was level with the surrounding substrate. Vertebrate sampling (at least in this study) commenced in the spring of 1983. The data were recorded in weekly intervals by the LTER staff and the annual data for each species was summarized. Because of the sparse capture records for many of the species, the abundance data for all four years was pooled. Hence, the lizard capture data failed to provide estimates of temporal variation in species diversity. However, the abundance data was used to estimate small scale spatial variation in lizard distribution along the Jornada transect.

2.1.3.2.2 Statistical Analysis

Determination of Spatial Trends in Abundance Data

The abundance of each species versus transect station was plotted as an initial approximation to the spatial structure of lizard abundance and distribution along the Jornada gradient. In addition, the total abundance of all lizards versus sample station was included on each plot to show the proportional representation of each species at each transect station. This provides a relatively coarse index into the relative abundance of each species. The abundance X transect station plots were compared with the vegetation zones and vegetation cover data to yield preliminary inferences into the correspondence between lizard distribution and abundance with habitat structure and turnover.

Spatial Variation in Species Diversity

Species diversity has been shown to correlate with habitat structure in several vertebrate groups. Simpson Diversity Index was calculated for each vegetation zone. The equation for Simpson Diversity Index is:

$$D = \frac{1}{\sum P_i^2}$$

Multivariate Analysis of Spatial Structure: Indirect Gradient Analysis

Indirect gradient analysis was used to uncover spatial trends in the distribution of lizard species along the Jornada LTER transect. Indirect gradient analysis involves the use of multivariate methods, such as correspondence analysis, to uncover patterns in the distribution of species along an environmental gradient. These patterns may indicate the sensitivity of species to underlying variation in key niche variables. By correlating the gradients to key environmental variables, potential limiting factors may be uncovered that affect the occurrence of a species along part or all of the gradient.

Correspondence analysis was used to estimate the relationship between lizard species abundance and distribution along the Jornada transect. Inferences regarding the structure of the gradient were derived in two ways. First, the scores for each species on each correspondence axis were plotted against the scores for the transect stations. The position of the species along each axis gives some insight into the clustering of species with respect to vegetation. This plot also suggests whether the species are limited to particular areas along the transect. Second, the scores for each transect station were plotted to determine the association between species and vegetation zone. For example, if the first correspondence analysis axis portrays a strong contribution from *C. tigris*, and the transect scores for this axis have the highest values in open areas of the Jornada transect, it is inferred that *C. tigris* preferred open areas. Hence, the correspondence analysis yields some inferences into the association between lizard abundance and vegetation.

A similar analysis was performed for plant coverage values, which were then used to refine the results from the lizard analysis.

The Association Between Lizard Abundance and Plant Cover

The direct association between lizard abundance and plant cover was computed using canonical correlation analysis. This multivariate procedure seeks to maximize the correlation between lizard abundance and plant cover, but minimize the correlations within lizards and plants.

Assessment of Spatial Structure: Spatial Autocorrelation and Semivariance Analysis

The distribution and abundance of lizards at each transect station may be influenced by factors at a local sample point as well as factors at a location at some unknown distance. Thus, the distribution of lizards may exhibit a spatial component in that there may exist similarity in abundance in distinct clusters of sample points located adjacent or near one another and dissimilarity in abundance in more distant sample points. Spatial autocorrelograms and semivariograms were calculated to estimate the spatial component of lizard abundance. The spatial autocorrelogram is a plot of some measure of autocorrelation (i.e., the correlation between two sample points, station x and station x + h, where h is a measure of distance) plotted against distance. In this instance, Moran's I versus distance (in 30 m increments) was plotted. A semivariance analysis produces a semivariogram (i.e., a measure of the variance--or similarity in composition--between success points that differ in distance). A semivariogram is a plot of the semivariance (τ(h)) against distance.

There are several statistics which may be derived from a semivariogram. These statistics assist in the interpretation of the spatial patterns. Continuity is a measure of the rate of growth of the semivariance function for small values of h. In certain instances, a large change in τ(h) over short distances is observed, which is known as the Nugget Effect. Finally, no evidence of a gradual increase of τ(h) with distance suggests that the abundance of a species is spatially independent of other samples. Often a variogram displays a sill or plateau. This phenomenon indicates that the influence of a sample disappears and the semivariance approaches the total sample variance. Thus, samples made beyond the range are essentially independent of one another once a given distance is reached.

3.0 Results and Discussion

3.1 Conceptual Framework for Arid-Land Characterization

3.1.1 Habitat Classification/Analysis

Between 1935 and 1980, the species richness decreased in the interdune exclosure plots from 15 to eight species, whereas the species richness increased in the dune exclosure plots from eight to nine species. Five forb species, three grass species, and one shrub species found in the interdune area in 1935 were absent in 1980. One of the major changes was the loss of *Bouteloua eriopoda* from both community types. The frequency of *Prosopis glandulosa* in the dune area was 71.3% in 1935, and this frequency remained at 70% in 1980. Over the 45-year investigation period, the frequency of mesquite increased in the interdune area from .6% to 4.1%; the frequency of *Sporobolus flexuosus* increased in the dune area from 5.2% to 17.4% and from 4.4% to 9.4% in the interdune area; and the frequency of *Xanthocephalum sarothrae* increased in the dune area from 1.8% to 3.2% and decreased in the interdune area from 15.6% to 14.2%.

The grazed areas of the JER in both the mesquite and grassland areas also experienced a decline in species richness over the 45-year investigation period. The mesquite community decreased from 13 species in 1935 to 10 species in 1980, while the grassland community decreased from 14 species in 1935 to 8 species in 1980. Continuous grazing and intermittent drought periods decreased the frequency of *Bouteloua gracilis* from 27.2% to 0% in the mesquite community and from 70.9% to 0% in the grassland community. Several species had an increase in cover over this time period in the two community types. *Prosopis glandulosa* increased in frequency from 16.4% to 32.8% in the mesquite community and from 2.5% to 24.8% in the grassland community; *Sporobolus flexuosus* increased in frequency from 6.3% to 15.5% in the mesquite community and from 3.7% to 20.5% in the grassland community; and *Xanthocephalum sarothrae* increased in frequency from 3.7% to 30.4% in the mesquite community and from 2.3% to 28.9% frequency in the grassland community.

The diversity indices used in this investigation did not indicate any clear pattern of change in heterogeneity in these communities over time. The Simpson and Shannon-Weiner diversity indices increased from 1935 to 1955 in the grazed community, but declined in 1980. However, both indices indicate an increase in heterogeneity in both the grassland and mesquite communities between the 1935 and 1980 analyses. Evenness also increased over this 45-year time period in the grazed communities. In the ungrazed dune and interdune exclosure communities, evenness increased after 45 years. However, the lowest evenness and heterogeneity values were obtained in the dune exclosure communities, which had Shannon-Weiner Diversity Index values that were less than 50% of those for the interdune communities.

The percent similarity between the 1935 and 1980 dune area community data was 89.2%; for the interdune area community data, the percent similarity was 54.8%. The dune and interdune vegetation had a relatively low percent similarity value over the 45-year period, averaging 13% when comparing the 1935 interdune data with the dune data for both years, and averaging 23% when comparing the 1980 interdune data with the dune data for both years. The UPGMA cluster analysis of these data also indicated that the two community types were very different from one another, but that over time the intra-community data clustered together for both community types.

The percent similarity between yearly data decreased over time for the grazed mesquite and grassland communities, from 71.1% similarity between the 1935 and 1950 mesquite communities to 35.9% similarity between the 1935 and 1980 mesquite communities. The grassland community showed a similar trend, with similarity values decreasing from 68.4% to 12.2% from 1935 to 1980. The grazed mesquite and grassland areas became more similar to one another over this 45-year period, with the 1935 plots in the two community types having a 48.4% similarity value and the 1980 plots in the two community types having an 84.2% similarity value. The UPGMA cluster analysis also indicates the relatively close similarity between the 1980 grazed mesquite and grassland areas and the great difference between them in 1935.

An overall UPGMA cluster analysis for the exclosure ungrazed data with the grazed data indicates that the exclosure communities clustered separately from the grazed communities. The 1980 frequency data for the mesquite and grassland communities clustered more closely together than did the 1935, 1950, and 1955 frequency data for these community types. These results indicate that environmental change over time, possibly the combined effect of grazing and drought, favored the establishment and expansion of mesquite distribution and inhibited black grama from maintaining itself in these stands.

The two ordinations run with these data yielded similar results. However, in the PCA analysis, the first two axes explained 89% of the variation, whereas in the DCA analysis, the first two axes explained only 65% of the variation. Both ordinations clearly showed the separation of ungrazed exclosure stands from the grazed stands. The general changes in both the grazed mesquite and grazed grassland communities over time were clearly evident in both the PCA and DCA analyses. The general decrease in the frequency of black grama grass and the increase in mesquite and other species over the 45-year investigation period would account for this clear pattern of change in composition over time in the grazed communities on axes one and two. The exclosure communities separate based on the high mesquite frequency percentages (71.3%, 70.0%) in the dune community and the relatively low frequency percentages (0.6%, 4.0%) in the interdune community in 1935 and 1980, respectively. The decrease in frequency of black grama grass to 0% in the exclosure dune and interdune plots indicates that some factor other than grazing, such as intermittent drought periods, could have played a role in its decline in these communities.

Mesquite was not eliminated by the exclosure treatment, and the decline of black grama grass occurred in both the grazed and ungrazed communities. Hennessy et al. (1983) concluded that black grama grass is more stressed by drought than mesquite, and it vanishes from communities because of its inability to reproduce. Mesquite and other species invade these former black grama communities during favorable years. The tolerance of mesquite to the stresses of grazing and drought, along with its ability to compete and reproduce, facilitates its expansion into the grassland communities. The fact that mesquite maintained a 70% frequency percentage in the exclosure dune treatments indicates that once mesquite is established, it is capable of maintaining populations in an area for relatively long periods of time.

The tree diagram produced by the FORTRAN cluster analysis is shown in Figure 1. This analysis produced between six and nine "natural" clusters. Discriminate analysis between each of these cluster levels demonstrated that structural characteristics could be used to identify each cluster. Each level of clustering produced only one mis-classification with the corresponding discriminate function.

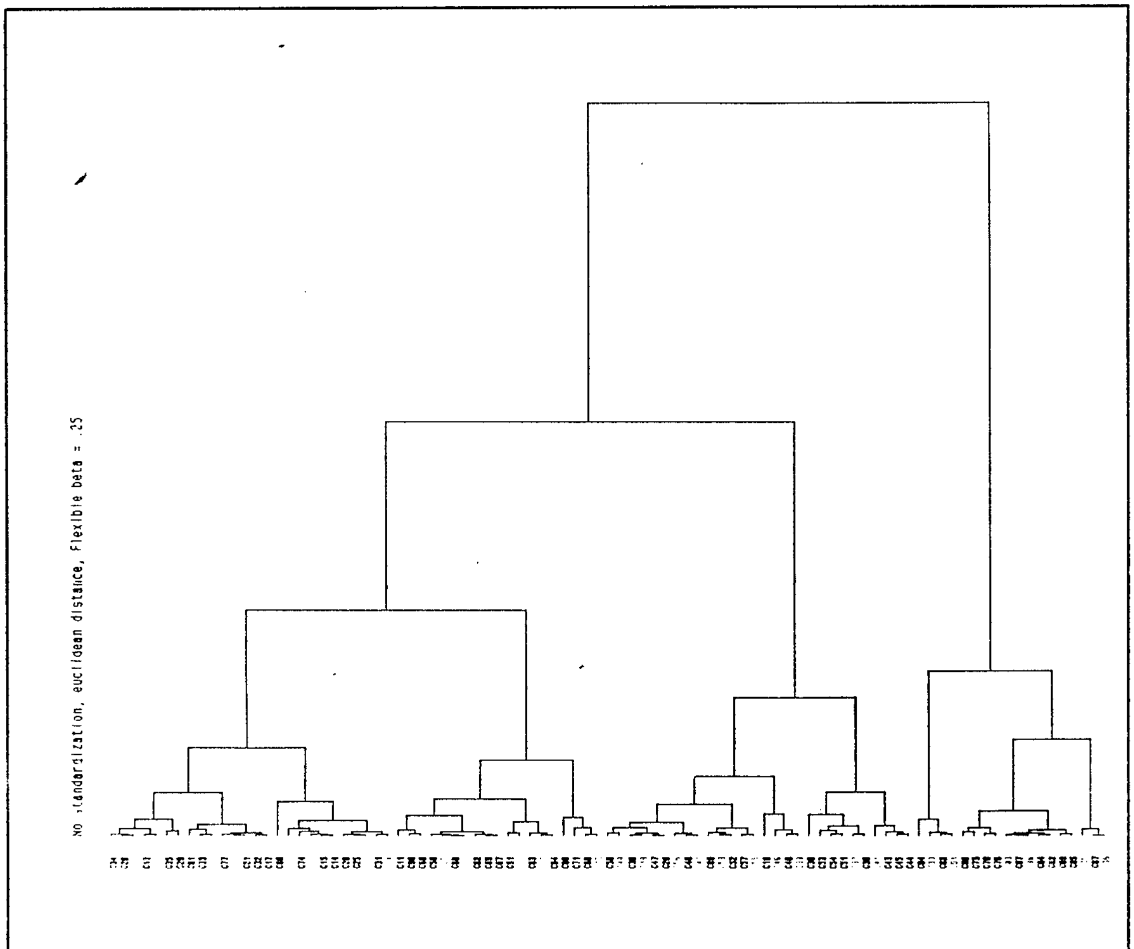

Figure 1. Tree Diagram, Cluster Analysis

The first major split in the dendogram corresponds to locations dominated (or not) by C_4 perennial grasses. Locations dominated by these grasses are further divided into areas that are exclusively C_4 perennial grasses and C_3 perennial forbs versus areas with a wide range of structural types and a density of succulents that is higher than average. The second major grouping is further divided into annual versus perennial groups. Further divisions of this major group are based on the relative abundance of shrubs versus forbs/grasses.

3.1.2 Species Diversity and Associations

The species richness in plant community types from the Playa to the mountain varied considerably. The lowest area of the Playa Basin transects had the most reduced species richness, with a mean of 7 (Standard Deviation (SD) = 1.4), while the Mixed Basin Slope community, which occurred above the Playa, had the highest species richness, with a mean of 24.3 (SD = 3.7). Other community types had the following mean species richness values:

- Playa Fringe 13.0 (SD = 2.7)
- Bajada Shrubland 10.8 (SD = 2.7)
- Lower Piedmont Grassland 19.9 (SD = 2.5)
- Upper Piedmont Grassland 16.3 (SD = 2.8)

The number of Playa species may be limited by the stresses of drought and intermittent flooding. Several species were completely limited to the Playa Basin community and did not occur in other zones along the transect, including *Helianthus ciliaris, Sida leprosa, Hymenoxys odorata, Cyperus esculentus, Panicum obtusum,* and *Portulaca oleracea.* Some species were very broadly distributed in all other community types, including *Croton pottsii, Bahia absinthifolia, Erioneuron pulchellum, Sporobolus cryptandrus, Allionia incarnata, Solanum eleagnifolium,* and *Boerhavia intermedia.* Other species with broad distributions above the Playa community were limited at the upper elevation and did not occur in the Upper Piedmont Grassland community, including *Xanthocephalum sarothrae, Yucca elata, Cassia bauhinioides, Aristida longiseta, Euphorbia serpyllifolia, Tidestromia lanuginosa,* and *Sporobolus contractus.*

The dominant cover species in the Playa Basin were *Helianthus ciliaris, Panicum obtusum, Sida leprosa,* and *Hymenoxys odorata.* The Playa Fringe community was dominated by *Prosopis glandulosa.* Other species with high cover values in this community include *Xanthocephalum sarothrae* and *Muhlenbergia porteri.* Highest cover values in the Mixed Basin Slope community were obtained by *Tidestromia lanuginosa, Xanthocephalum sarothrae, Chenopodium incanum, Croton pottsii,* and *Tribulus terrestris.* The Bajada Shrubland community had high cover values and is characterized by *Larrea tridentata. Zinnia acerosa* is apparently nearly limited to this community type, while other species have relatively high frequency, including *Bahia absinthifolia, Muhlenbergia porteri, Erioneuron pulchellum,* and *Xanthocephalum microcephalum.* The Upper and Lower Piedmont Grassland communities are characterized by high cover

values for *Bouteloua eriopoda*. Other species with relatively high cover in the Lower Piedmont Grassland community include *Xanthocephalum microcephalum, Boerhavia intermedia, Bouteloua aristidoides,* and *Muhlenbergia porteri*. In the Upper Piedmont Grassland community, a number of species have relatively high cover values, including *Opuntia phaeacantha, Amaranthus palmeri, Ephedra trifurca,* and *Bouteloua aristidioides.*

The diversity indices used in this analysis indicated a somewhat lower Simpson Diversity Index on the pan transects (ranging from 0.7879 to 0.8889) than in other community types. The Simpson Diversity Index values for all other community types did not appear to differ significantly. The Shannon-Weiner Diversity Index indicated that the Playa Basin transects had lower heterogeneity values (ranging from 0.6185 to 0.8660) than other community types. Portions of the Bajada Shrubland community had a broad range of heterogeneity, with values ranging from 0.7545 to 1.1132. Other community types did not appear to differ significantly in their Shannon-Weiner Diversity Index values. Evenness along the 89 transects did not appear to differ significantly between community types. The Playa Basin community had values ranging from 0.8849 to 0.9333. The values for individual transects through all other community types ranged from 0.8946 to 0.9776.

A UPGMA cluster analysis was performed on the 1982-1984 summer data. Community types were clearly distinguished by this method, using the synthetic class values provided in this document for the three-year period. The results were very similar to the Twinspan analysis for actual cover data for individual years reported by Cornelius et al. (1991). These results indicate that synthetic cover class groups may provide results that are equivalent to that of actual cover measurements. The same six community types were delimited by the UPGMA analysis from transects 1-89 as in the original Twinspan study of raw data values, including Playa Basin (1-7), Playa Fringe (8-10), Mixed Basin Slopes (11-59), Bajada Shrubland (60-71), Lower Piedmont Grassland (72-81), and Upper Piedmont Grassland (82-89).

Ordination of these data using PCA and DCA yielded similar results, but the first three axes explained only about 45% of the variation in PCA and 38% of the variation in DCA. The Playa Basin transect separated out clearly from all other transects on axis one in the DCA analysis, and it was clearly separated on axis two in the PCA analysis. Axis two separated out from other transects in DCA, but without cluster analysis it would be difficult to draw limits for community types. PCA clearly separated the Mixed Basin Slope and the Bajada Shrubland communities from the Piedmont Grassland communities. However, since they form a continuum of transects, it was not possible to separate the Upper and Lower Piedmont Grassland communities from one another by either PCA or DCA analysis without the use of the UPGMA cluster analysis.

Cornelius et al. (1991) concluded that a number of environmental factors varied along the transect gradient at the NMSU College Ranch LTER site in south central New Mexico.

Clay content was highest and sand content lowest in the Playa Basin community; clay content decreased and sand increased along the gradient to the Upper Piedmont Grassland community. The middle of the transect had the least available water and lowest nitrogen content (the Bajada Shrubland and Lower Piedmont Grassland communities had the least nitrogen), and the Playa Fringe community had the highest nitrogen content. The lowest and uppermost ends of the gradient had the best moisture and nitrogen relationships (Cornelius et al., 1991).

3.1.3 Distribution of Lizards

3.1.3.1 *Lizard Species Composition Along the Jornada LTER Transect*

A total of 17 species were captured over the four year sample period (1983-1986). Four families were represented in the sample:

- Crotaphytidae: *Crotaphytus collaris, Gambelia wislizenii*
- Phrynosomatidae: *Holbrookia maculata, Cophosaurus texanus, Phrynosoma cornutum* (PhCo, *P. modestum, P. douglassi, Uta stansburiana, Sceloporus poinsetti, S. clarki, S. magister, S. undulatus*)
- Scincidae: *Eumeces obsoletus*
- Teiidae *Cnemidophorus neomexicanus, C. tigtis, C. tesselatus, C. uniparens*

Several species were represented by less than five observations over the entire sample period, including long-nosed leopard lizard (*Gambelia wislizenii*), greater earless lizard (*Cophosaurus texanus*), short-horned lizard (*Phrynosoma douglassi*), crevice spiny lizard (*Sceloporus poinsetti*), clark spiny lizard (*S. clarki*), and new mexican whiptail (*Cnemidophorus neomexicanus*). Therefore, these species were excluded from the analysis. The remaining species accounted for 694 sample observations between 1983-1986 (Appendix D).

3.1.3.2 *Species Accounts*[2]

Family Crotaphytidae

Common Collared Lizard (*Crotaphytus collaris* (CRCO)): This rock-dwelling species may be found in canyons, rock arroyos, mountain slopes, and rocky alluvial fans. The species prefers open habitat with sparse vegetation. Boulders are essential for basking sites, whereas open areas are required for rapid locomotion.

Family Phrynosomatidae

Lesser Earless Lizard (*Holbrookia maculata* (HOMA)): This terrestrial (ground-dwelling) species is common in habitats with exposed areas of sand or gravel. It is common in washes, sandy arroyos, sand dunes, shortgrass prairies, sagebrush flats, mesquite bosques, and piñon-juniper woodland. The geographic race occurring in the Jornada LTER tends to favor desert grasslands and the open vegetation of the bajadas.

Texas Horned Lizard (*Phrynosoma cornutum* (PHCO)): This species of *Phrynosoma* may be found in arid and semi-arid habitats with little vegetation (elevational range to 1800 m). A variety of plant forms may be present, such as cactus, bunch grass, acacia, mesquite, or juniper. Soil conditions may vary from sand, loam, rock, or hardpan. Openness ia a key attribute common to all of the habitats and elevations that this species inhabits.

Round-Tailed Horned Lizard (*P. modestum* (PHMO)): This species may be found in desert flats, washes, bajadas, and arid or semi-arid plains with shrubby vegetation.

Side-Blotched Lizard (*Uta stansburiana* (UTSB)): This species has a wide distribution that occurs in a variety of arid and semi-arid habitats. Primarily a ground dweller, the species can be found in several types of ground conditions including sand, rock, hardpan, desert flats, or foothills; and in a broad range of vegetation associations including open grassland, shrubland, or open woodland. Its typical habitat may comprise a sandy arroyo bordered by boulders and clumps of vegetation. Individuals are primarily ground-dwelling, but may climb rocks for basking. This species rarely ventures from retreat sites, such as crevices, shrubs/grass, or burrows.

Desert (Twin-Spotted) Spiny Lizard (*Sceloporus magister* (SCMA)): This common but wary lizard occurs in arid and semi-arid habitats, typically below 1200 m elevation. The species occurs in joshua tree, creosote-bush, and shad-scale deserts, mesquite/yucca grassland, juniper, or mesquite woodland as well as riparian habitats with desert willows

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[2]Species accounts are based on natural history notes from Stebbins, 1985 and Conant and Collins, 1991.

or cottonwoods. It prefers habitats with suitable refuges, e.g., dense vegetation (shrub habitat), boulder fields, or rodent burrows.

Southern Prairie Lizard (*S. undulatus* (SCUN)): This terrestrial species has rather broad habitat preferences. It may occur in sand dunes, sandy arroyos, open prairie, or vegetated flatlands, e.g., yucca flats, woodland, and rocky hillsides. It requires a habitat with suitable retreat sites (brush piles, burrows, or rock piles).

Family Scincidae

Great Plains Skink (*Eumeces obsoletus* (EUOB)): This is a secretive species of the grassland and woodland. It principally requires open habitats with short, shrubby vegetation. In the arid and semi-arid west, this species prefers canyons, mesas, and mountains with grass and short shrub habitats. It prefers fine-grain soils and is typically found under rocks, logs, bark, or boards.

Family Teiidae

Western Whiptail (*Cnemidophorus tigris* (CNTI)): This is an active foraging lizard that sprints from one vegetation patch to another in search of insects. This bisexual species inhabits a range of habitats at a variety of elevations. It generally occurs in areas with sparse vegetation.

Desert Grassland Whiptail (*C. uniparens* (CNUN)): This unisexual species of *Cnemidophorus* is common to desert and mesquite grasslands. *C. uniparens* occurs in plains and foothill habitats with sparse grass and forb cover. It may also occur in mesquite and yucca flats.

Checkered Whiptail (*C. tesselatus* (CNTE)): This unisexual species occurs in a broad range of habitats, including plains, canyons, foothills, and along rivers and wide arroyos. It may occupy creosote bush flats or piñon-juniper woodlands. A principal requirement of the species is the availability or rocks in habitats with sparse vegetation.

3.1.3.3 *Spatial Trends in Lizard Abundance Data*

The numbers of individuals captured at each sample station was plotted in order to obtain an initial portrayal of spatial variation in lizard abundance. Two kinds of patterns were sought:

1) evidence of clustering and
2) correspondence between peak abundance and plant cover

Evidence of clustering would suggest that a species might be responding to an underlying gradient or patchy structure of the habitat. A link between peak abundance and vegetation variables would suggest that the species might be sensitive to changes in

habitat structure as a consequence of global environmental change. The patterns of species abundance along the Jornada transect are shown in Figures 2-6. All figures include the total numbers of lizards captured at each transect station. These data are presented for comparison and allow an estimation of the relative abundance of each lizard species.

Crotaphytus collaris occurred in low numbers along the length of the transect (Figure 2). Peak numbers were observed in the Lower Basin Slope (zone 3) between stations 35-43, and Lower Piedmont Slope (zone 5) between stations 76-82. The areas where this species was captured corresponds with regions along the transect with low vegetation coverage.

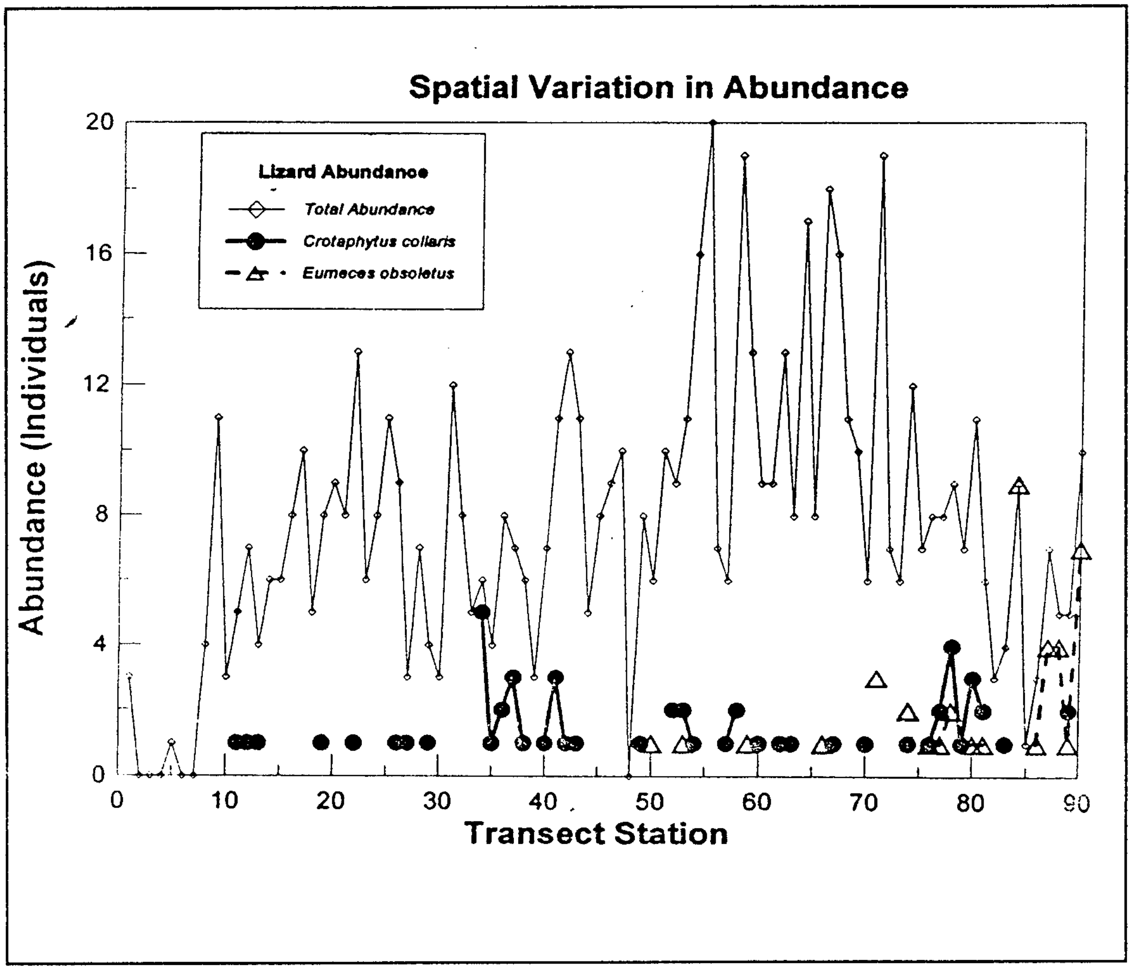

Figure 2. Species Abundance Along the Jornada Transect--
C. collaris, E. obsoletus

Holbrookia maculata had a relatively low representation in the sample. The species was captured between transect stations 18-80; however, its abundance and distribution was patchy at best. Individuals were captured within the Lower Basin Slope and the Lower Piedmont Slope. No association between the abundance of *H. maculata* and variation in vegetation cover was discerned.

Phrynosoma cornutum also exhibited low abundance levels (Figure 3); however, it was captured in a greater number of pitfall traps. The species occurred in the Playa, Playa Fringe, Lower Basin Slope, and Upper Basin Slope (zone 4). The species tended to occur in transect stations with low amounts of grass and forb cover.

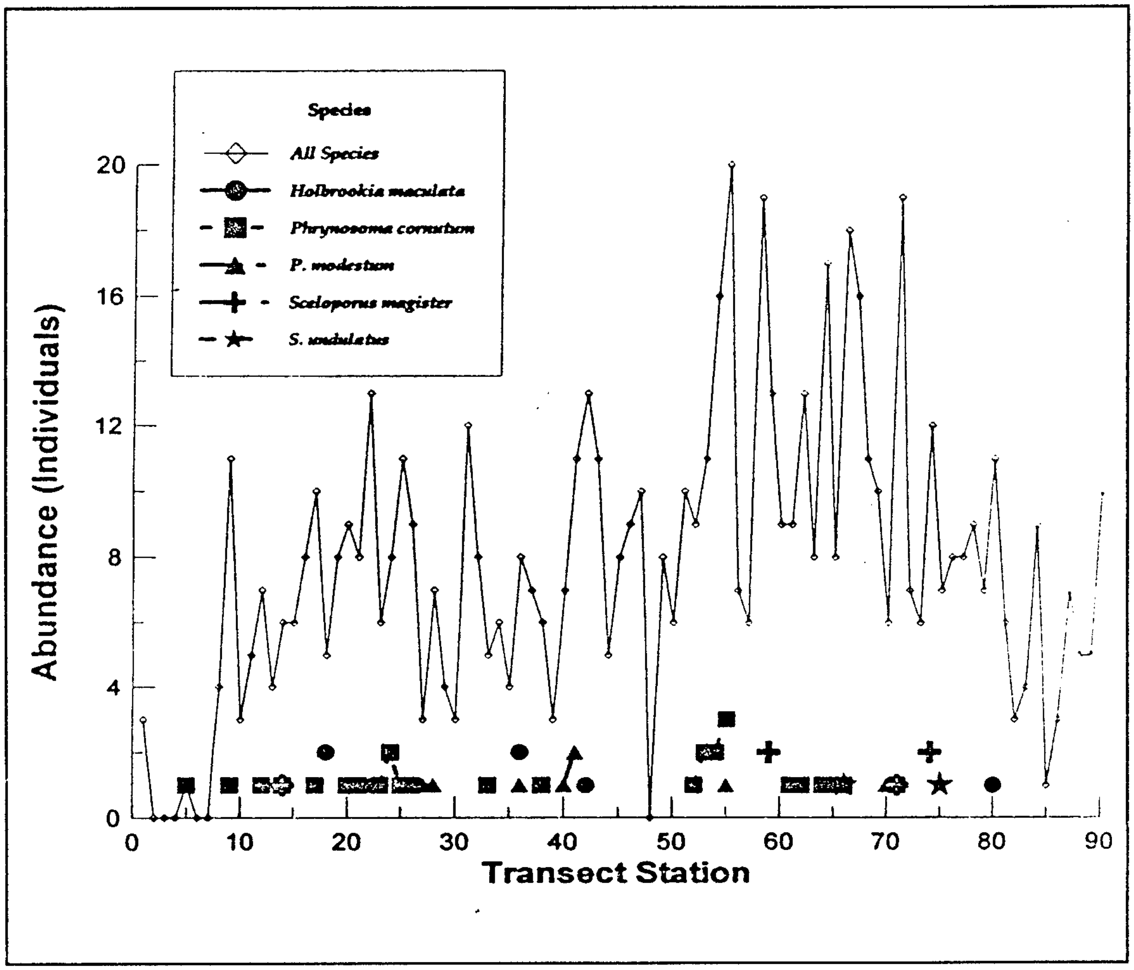

Figure 3. Species Abundance Along the Jornada Transect--*H. maculata, P. cornutum, P. modestum, S. magister, S. undulatus*

P. modestum was found in the same range of transect stations as *P. cornutum*, with the exception of the Playa. Unlike its sister species, *P. modestum* was relatively uncommon throughout the transect. Most captures were located in the Lower Basin Slope. Individuals were captured in those transects with sparse vegetation.

Uta stansburiana was one of the two most common species of lizard captured in the study (Figure 4). The species occurred in all seven vegetation zones defined by Wierenga et al. (1987). However, the highest densities were recorded in the Upper Basin Slope (zone 4). The peak in abundance of *Uta stansburiana* corresponds with that portion of the transect with the highest proportion of vegetation coverage.

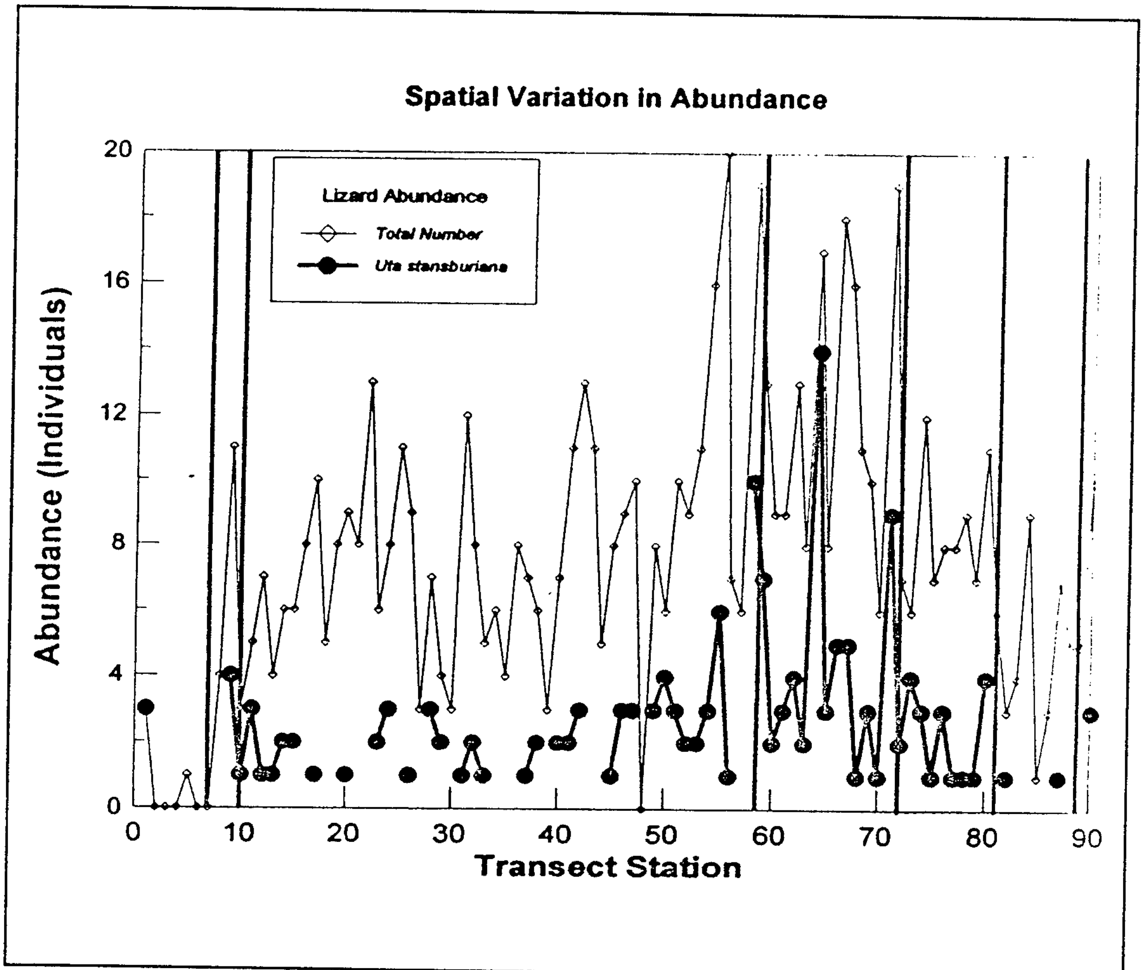

Figure 4. Species Abundance Along the Jornada Transect--*U. stansburiana*

S. magister was extremely localized in this study. The species was rare and occurred near the Playa Fringe (zone 2) and the Upper Basin Slope. The pattern of abundance and distribution may be an artifact of the sampling protocol (see below).

S. undulatus was infrequently captured during the sampling period. Capture records occurred only in the Upper Basin Slope and Piedmont Slope vegetation zones.

Eumeces obsoletus reached its highest levels of abundance in the Upper Piedmont and Rocky Slope-Shrubland zones (zones 6 and 7, respectively), although the species was

captured in the Upper Basin Slope zone as well (Figure 2). The stations in which *E. obsoletus* occurred were characterized by shrubby vegetation with little or no grass or forb cover.

Cnemidophorus tigris occurred throughout the transect between stations 8-81 (Figure 5). Peak levels of abundance occurred in the Lower Basin Slope and the region between the Upper Basin Slope and Lower Piedmont Slope. The former area consisted of sparse vegetation, whereas the second region consisted of open creosote-bush habitat.

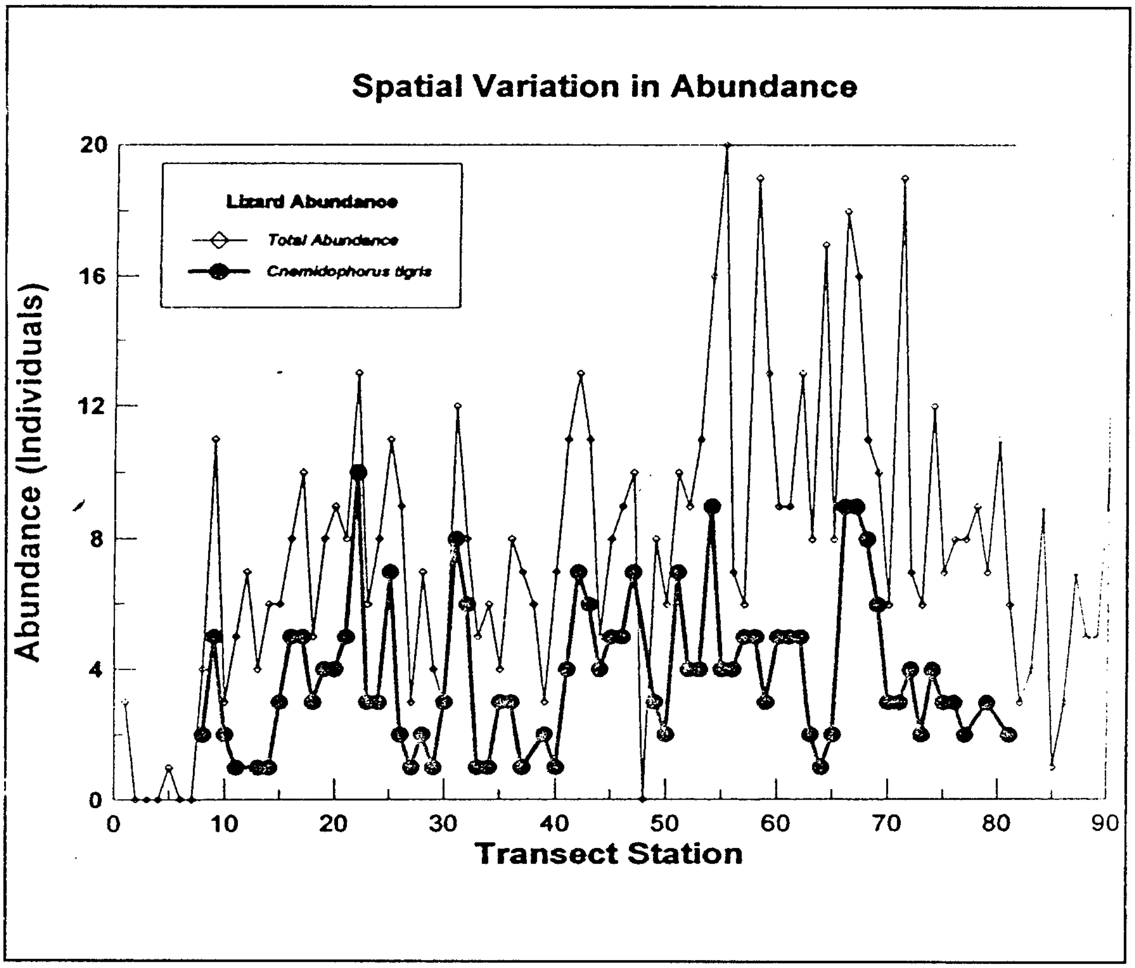

Figure 5. Species Abundance Along the Jornada Transect--*C. tigris*

C. tesselatus exhibited a distribution that mirrored *C. tigris*; however, *C. tesselatus* never attained high densities. This species was most likely to occur in habitats with open vegetation.

C. uniparens primarily occurred in the Upper Piedmont Slope (zone 6); however, one capture record placed the species in the Upper Basin Slope zone (Figure 6). Given the

difficulty of identifying species of whiptail and in the absence of a specimen, mis-identification of the aberrant record must be considered.

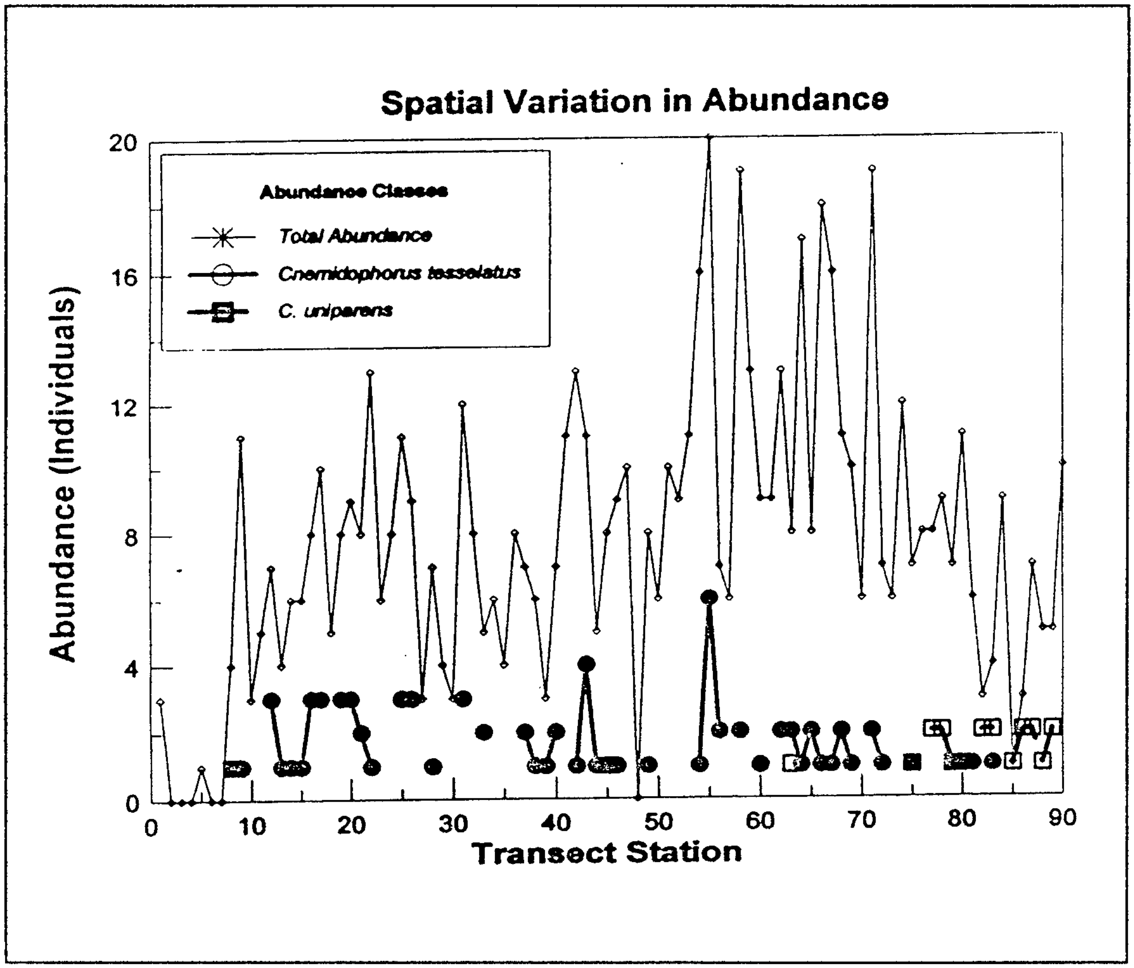

Figure 6. Species Abundance Along the Jornada Transect--*C. uniparens*

3.1.3.4 *Spatial Variation in Species Diversity*

Species diversity was lowest in the Playa and Rocky Slope-Shrubland zones and intermediate in the Playa Fringe, Lower Basin Slope, Upper Basin Slope, and Upper Piedmont Slope (Figure 7). Species diversity was highest in the Lower Piedmont Slope zones. These estimates of diversity differ from those presented by Whitford and Creusere (1977). In general, lizard diversity is lower in the present study. For example, species diversity values in the Playa zone ranged from 4.6 - 6.75 over a five-year period (based on e^H, the exponential transformation of the Shannon-Weiner Diversity statistic). Also, species diversity in the Bajada zone varied from 3.6 - 5.05. Thus, Whitford and Creusere (1977) described much higher levels of diversity in the Playa zone than documented using the Jornada LTER data. The Bajada diversity values are similar in

both studies. Because Whitford and Creusere (1977) did not divide the Bajada zone into the same vegetation zones as those used for this study, the diversity statistics may not be directly comparable.

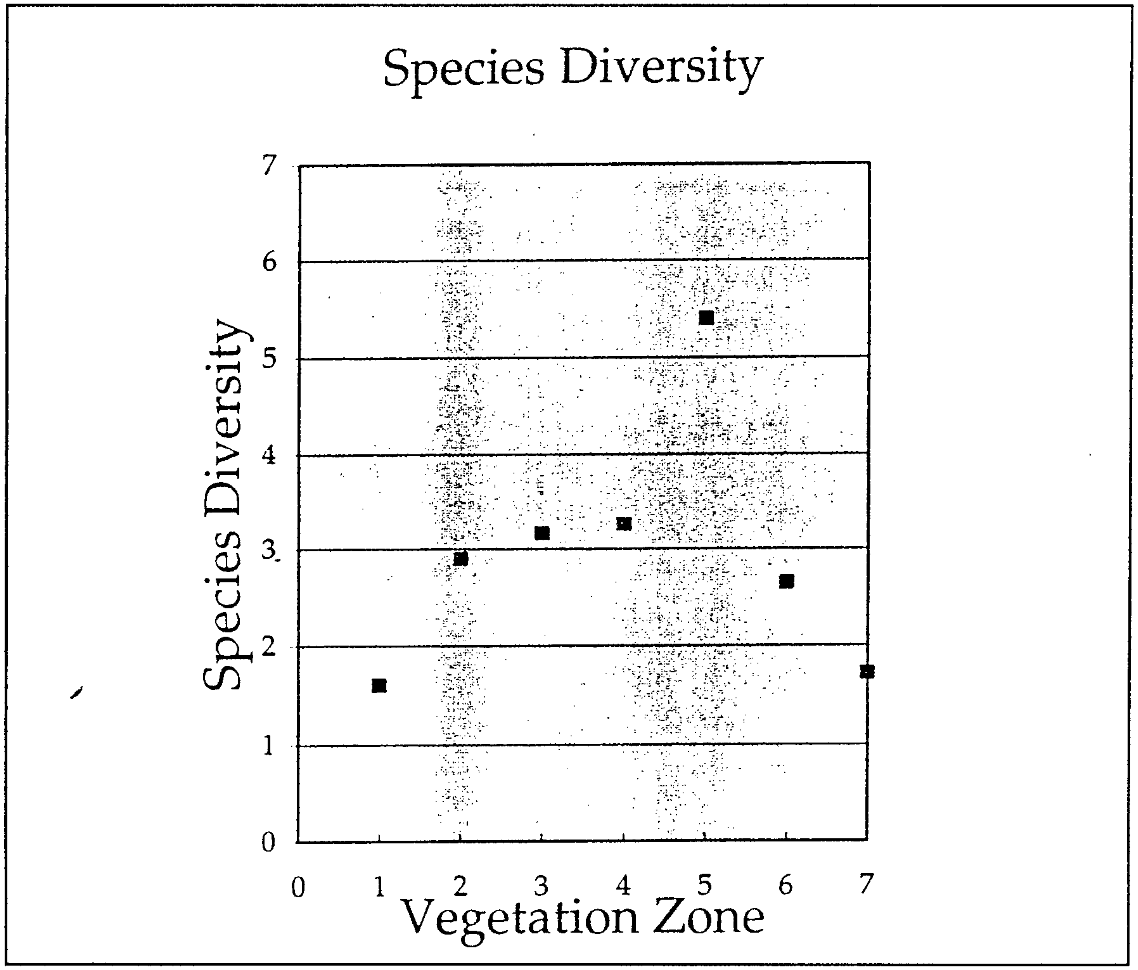

Figure 7. Species Diversity

3.1.3.5 *Multivariate Analysis of Spatial Structure: Indirect Gradient Analysis*

3.1.3.5.1 Lizards

The correspondence analysis of the lizard abundance data required five axes to explain 75% of the total sample variation (Table 3). Interpretations for each axis were based on any species score that exceeded 0.50.

Table 3. Results from a Correspondence Analysis of Lizard Abundance Data

Axis	Eigenvalue	Chi-Square	% Variance Explained
1	0.76	405.32	27.14
2	0.58	234.88	15.73
3	0.51	183.11	12.26
4	0.46	146.67	9.82
5	0.45	140.49	9.41

The first axis showed large scores for CNUN and EUOB and low scores for the remaining species (Table 4, Figure 8). This axis largely separated these two species, which occurred close to the base of Mt. Summerford, from the remaining species. Correspondence Analysis (CA) Axis two exhibited high scores for CRCO, HOMA, and PHMO and a large negative score for SCMA. It appears that this axis separated SCMA (which occurred in high shrub cover locations) from the species which occurred in more open areas. The third axis separates the grassland species HOMA and PHMO from the Upper Bajada species CNUN and SCUN. The remaining axes also describe contrasts between species of open areas versus those occurring in shrub-dominated sites.

Table 4. Species Coordinates for the First Five Correspondence Analysis Axes[3]

Species	Axis				
	1	2	3	4	5
CNTE	-0.36	0.07	-0.22	-0.25	-0.48
CNTI	-0.35	-0.03	0.04	-0.38	-0.03
CNUN	***1.80***	***2.24***	***-1.22***	-0.37	***0.69***
CRCO	0.16	***0.89***	0.48	***0.83***	***-0.53***
EUOB	***2.61***	***-0.94***	0.43	-0.23	-0.36
HOMA	-0.27	***1.29***	***4.19***	***-0.88***	***2.29***
PHCO	-0.38	-0.33	-0.32	0.19	-0.28
PHMO	-0.39	***0.52***	***0.84***	***0.95***	***-1.02***
UTSB	-0.09	-0.32	-0.19	0.46	0.44
SCMA	0.17	***-1.04***	-0.29	***0.81***	***1.19***
SCUN	-0.05	0.19	***-0.79***	***-1.17***	***0.59***

[3]Highlighted cells designate the scores used to interpret each axis.

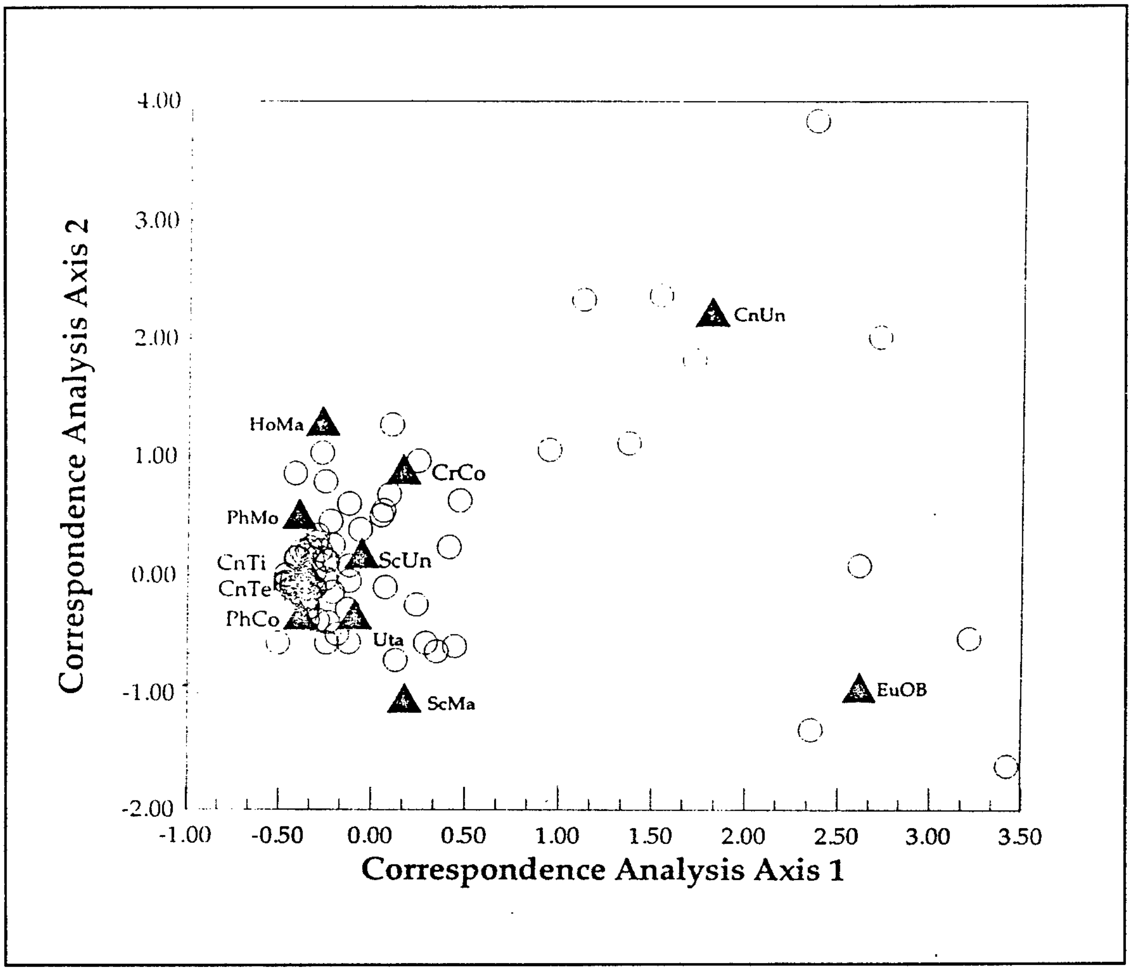

Figure 8. Correspondence Analysis of Lizard Abundance Data

The position of species and sample points in a two-dimensional (2-D) plot reveals the clustering of species that require open areas and the dispersion of species which occur in the grassland habitats in the upper portion of the transect. Table 5 shows the strong correlations between lizard abundance and the first three correspondence analysis axes.

Table 5. Correlations Between the Lizard Abundance Values and the First Three Correspondence Analysis Axes (N = 90)

Species	Axis		
	1	2	3
CNTE	0.66***	0.20	-0.10
CNTI	0.65***	0.04	-0.19
CNUN	-0.60***	0.00	-0.23*
CRCO	-0.26*	0.51**	0.37**
EUOB	-0.38**	-0.47**	0.22*
HOMA	0.13	0.38**	0.27**
PHCO	0.65***	-0.02	0.062
PHMO	0.20	0.60***	0.40**
UTSB	0.474**	-0.41**	0.42**
SCMA	0.092	-0.55***	0.55***
SCUN	0.14	-0.19	-0.47**

Examination of the sample scores along CA axis one verifies the contrast between CNUN and EUOB versus the remaining species (Figure 9). Figures 10 and 11 amplify the patterns for CA axes two and three, respectively. The high scores along CA axis two occurred in the Playa Fringe, Lower Basin Slope, and Upper Piedmont Slope. However, the high scores on CA axis three occurred principally in the Lower Basin Slope vegetation zone. Large, negative scores were obtained in the Lower and Upper Piedmont Slope region.

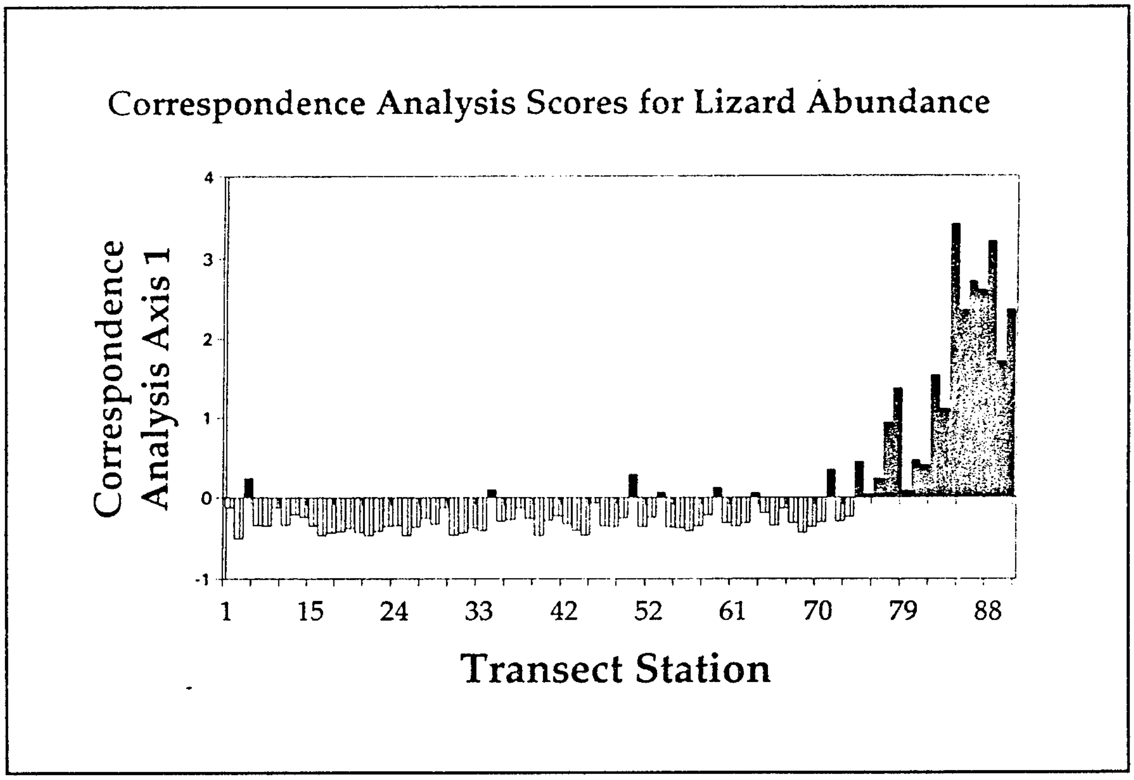

Figure 9. Correspondence Analysis for Lizard Abundance, CA Axis 1

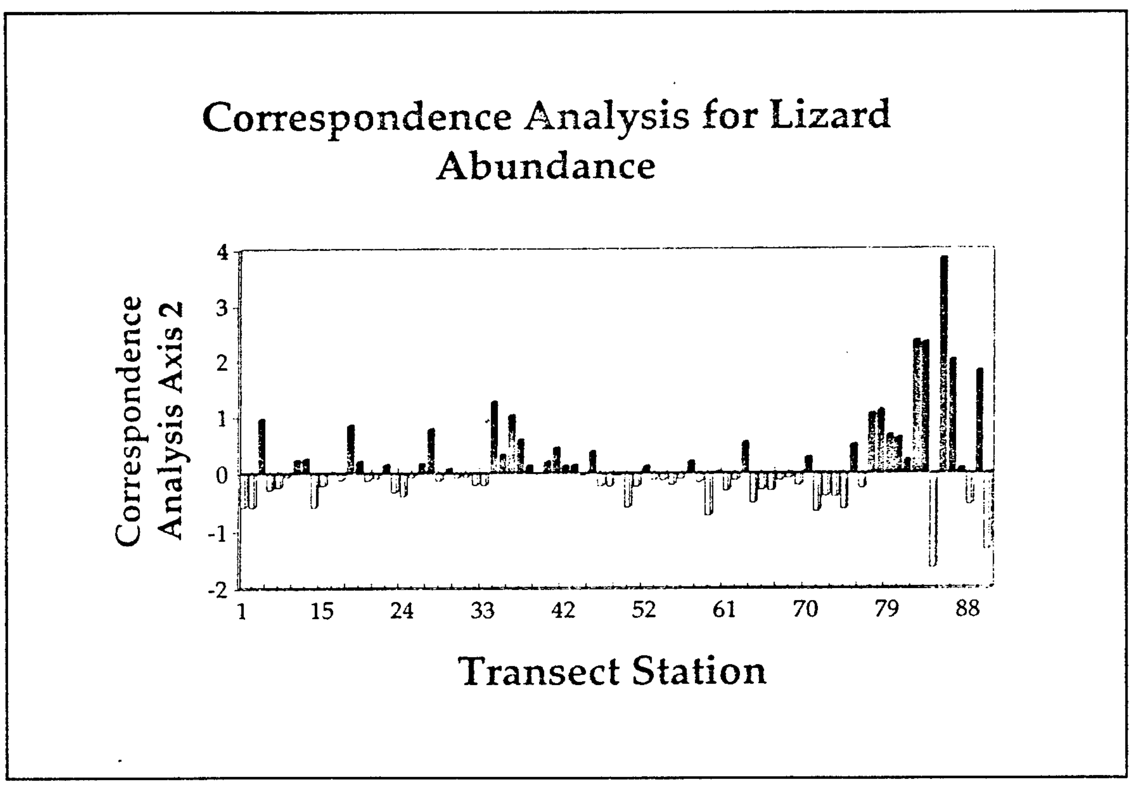

Figure 10. Correspondence Analysis for Lizard Abundance, CA Axis 2

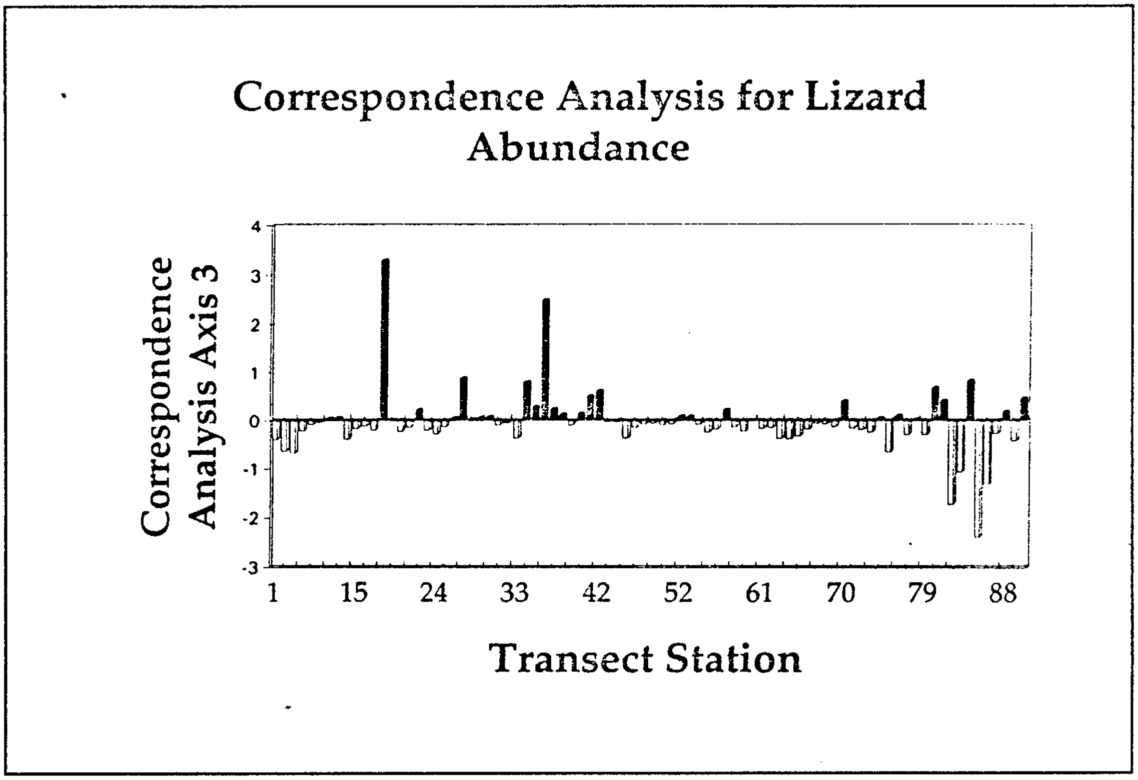

Figure 11. Correspondence Analysis for Lizard Abundance, CA Axis 3

3.1.3.5.2 Plants

The first three correspondence analysis axes explained nearly 90% of the variation in vegetation cover (Table 6). The first axis, which explained 43% of the variance, portrayed a gradient with forb coverage at one end and shrub coverage at the other (Table 7). The second axis, which explained 28% of the variance, placed succulents at one end of a gradient and shrubs at the other. The last axis, which explained 16% of the variation, provided a contrast between grass and sub-shrub coverage at one pole, and succulent coverage at the opposite pole.

Table 6. Results from a Correspondence Analysis of Plant Coverage Data

Axis	Eigenvalue	Chi-Square	% Variance Explained
1	0.88	931.76	42.77
2	0.71	609.45	27.98
3	0.54	353.69	16.24

Table 7. Plant Cover Coordinates for the First Three Correspondence Analysis Axes

Plant Cover Category	Axis		
	1	2	3
Grass	0.14	0.73	0.89
Forb	-1.24	-0.20	-0.07
Sub-Shrub	0.38	0.61	0.96
Shrub	0.79	-0.58	-0.18
Leafy Succulent	0.35	1.79	-1.08

The first CA axis presents a contrast between the Playa vegetation (note the position of the forbs along the negative pole of CA axis one in Figure 12 and the large values characterizing the sample stations in the Playa and Playa Fringe zones in Figure 13). Large negative values were also apparent in the middle portion of the Lower Basin Slope zone (Figure 13), suggesting high forb cover in this area. Positive values for shrub cover were seen in the early portion of the Lower Basin Slope and latter portion of the Upper Basin Slope (Figure 13). CA axis two contrasted succulent cover with shrub cover (Figure 14). Three portions of the transect showed high scores for CA axis two, the Lower Basin Slope, and the combined Piedmont slopes. Because grass and sub-shrub cover showed relatively high scores on this axis, it may be interpreted to represent a complex consisting of an admixture of sub-shrubs with grasses and succulents. Lastly, CA axis three described a contrast between sample stations with high levels of grass and sub-shrub cover, but low amounts of succulents (Figure 15). Again, the samples occurring in the Lower Basin were associated with this pattern. Interestingly, the upper portion of the transect showed a patchy distribution for the scores on axis three. This suggests that the upper areas of the transect are considerably more heterogeneous than indicated by the zonation patterns of Wierenga et al. (1987).

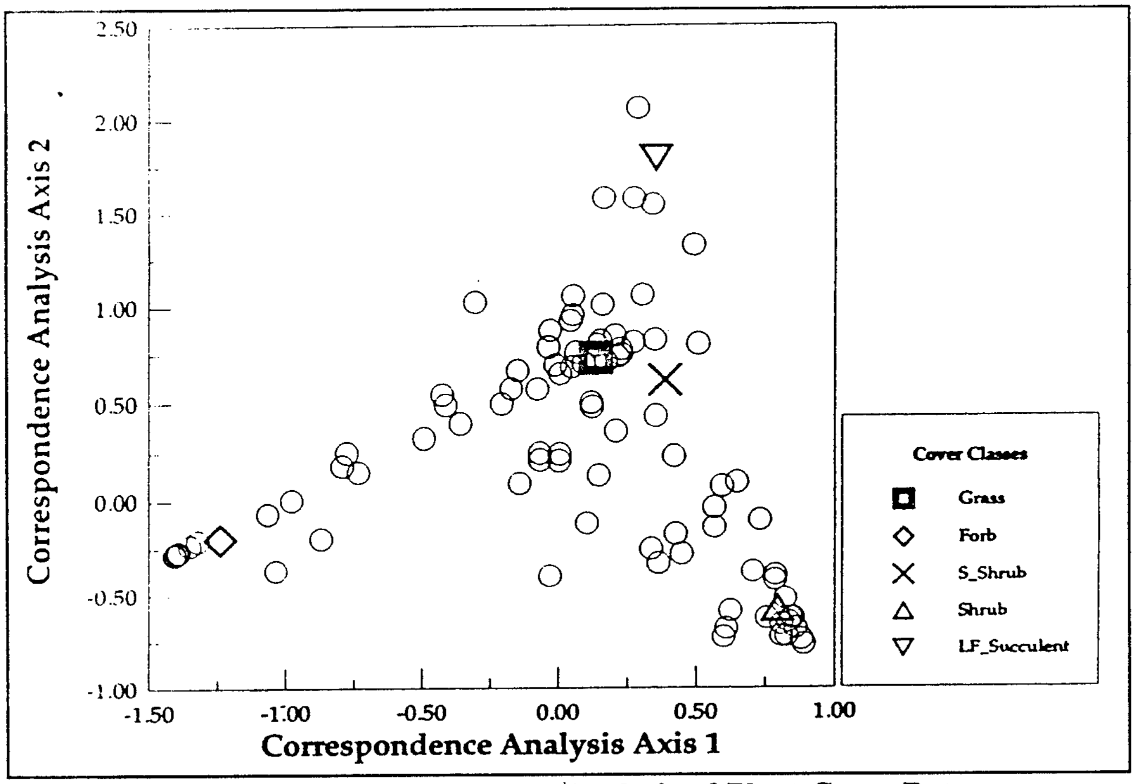

Figure 12. Correspondence Analysis of Plant Cover Data

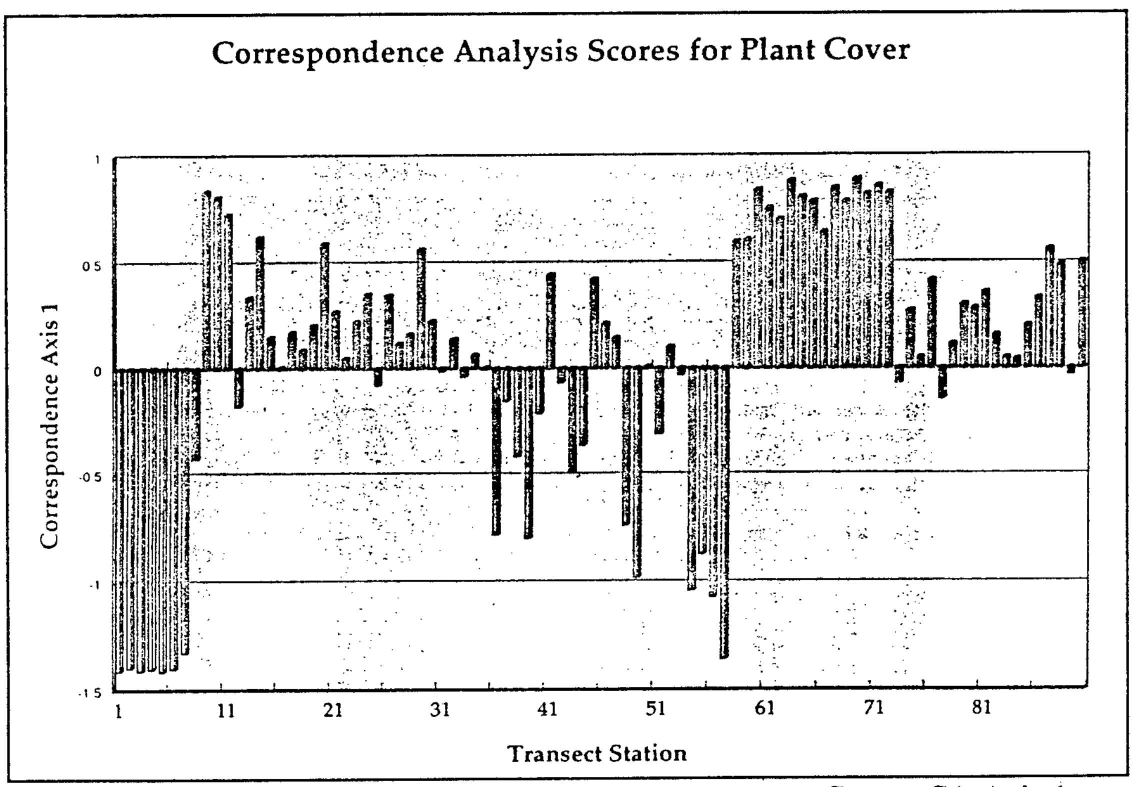

Figure 13. Correspondence Analysis Scores for Plant Cover, CA Axis 1

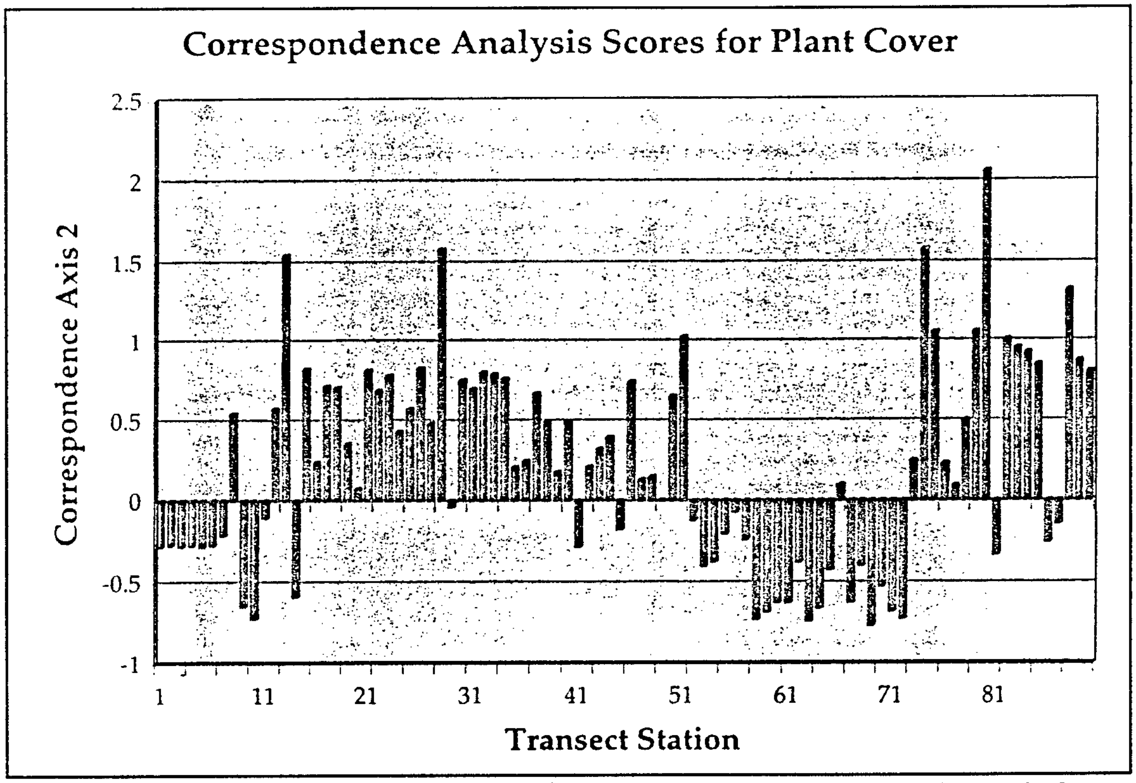

Figure 14. Correspondence Analysis Scores for Plant Cover, CA Axis 2

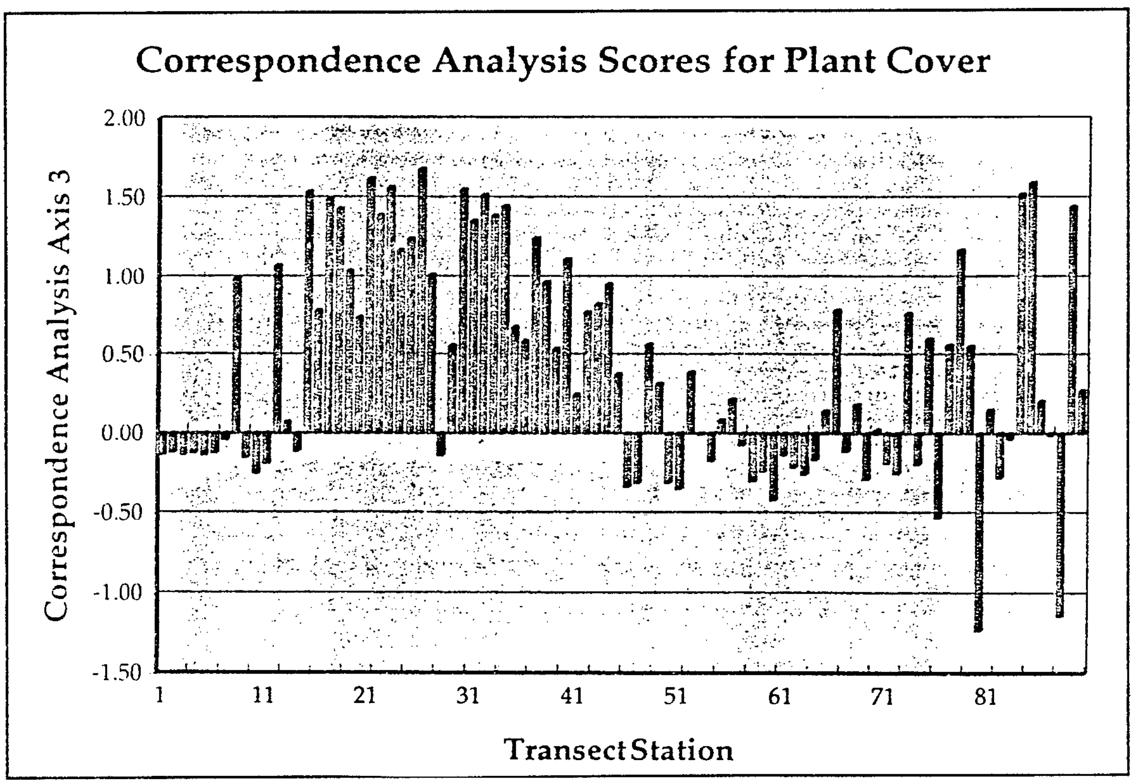

Figure 15. Correspondence Analysis Scores for Plant Cover, CA Axis 3

3.1.3.6 *The Association Between Lizard Abundance and Plant Cover*

The canonical correlation analysis revealed three significant correlations between lizard abundance and vegetation coverage (Table 8). The first canonical axis ($\rho = 0.85$) explained 72% of the variation in common between lizard abundance and vegetation coverage. Lizard species with high positive correlations with the first canonical axis include *C. uniparens* and *E. obsoletus*. Both *C. tesselatus* and *C. tigris* exhibited large negative correlations. The plant categories which loaded on this same axis included grass and succulent cover. Thus, the abundance of *C. uniparens* and *E. obsoletus* is associated with high levels of plant cover, whereas the remaining two Teiid species occurred in regions of the transect with low grass cover.

The second canonical correlation ($\rho = 0.63$) had only a single lizard species with a large correlation, *U. stansburiana* (Table 8). Two other species, *C. tigris* and *S. magister*, also showed moderately large, positive correlations with the second axis. This canonical axis represented a contrast between shrubby vegetation (high, positive loading) and forb cover (large, negative loading). Thus, the lizard species associated with the second canonical axis occur in regions with high shrub, but low forb cover.

Finally, the third canonical axis ($\rho = 0.52$) had high values for *S. undulatus, C. tigris,* and, to a lesser extent, *P. cornutum.* This axis was dominated by the contribution of sub-shrub cover. Thus, these species were associated with transect stations that had relatively high values for sub-shrub cover. To a lesser extent, these transect stations also had less shrub and succulent cover.

Table 8. Results from a Canonical Correlation Analysis: The Correlation Between Lizard Abundance and Plant Coverage Classes[4]

Species	Canonical Axes		
	1	2	3
CNTE	-0.34	0.17	0.08
CNTI	-0.45	0.48	0.41
CNUN	0.76	-0.09	-0.19
CRCO	0.05	0.05	-0.01
EUOB	0.69	0.18	-0.11
HOMA	-0.06	-0.04	-0.13
PHCO	-0.26	0.10	0.27
PHMO	-0.20	-0.02	0.065
UTSB	-0.16	0.85	-0.22
SCMA	-0.04	0.40	-0.14
SCUN	0.29	0.25	0.81
Proportion Variance in Lizard Abundance Explained	0.16	0.32	0.08
Plant Cover Classes	**Canonical Axes**		
	1	**2**	**3**
GRASS	0.94	-0.16	-0.18
FORB	-0.05	-0.54	-0.04
SUB-SHRUB	0.24	0.49	0.75
SHRUB	-0.02	0.84	-0.26

[4]The values presented in this table are the correlations between lizard abundance or plant cover and their canonical variable.

Species	Canonical Axes		
	1	2	3
LEAFY SUCCULENT	0.35	0.18	-0.33
Proportion Variance in Plant Cover Explained	0.01	0.40	0.04
Canonical Correlation	0.85	0.63	0.52
Likelihood Ratio	0.09	0.55	1.89
P	0.0001	0.0001	0.007

3.1.3.7 *Assessment of Spatial Structure: Spatial Autocorrelation and Semivariance Analyses*

Three of the 11 species demonstrated no evidence of a significant spatial autocorrelation (Table 9). Thus, these species showed little spatial structure along the transect, and the abundance at one station was largely independent of its abundance at another station.

All three *Cnemidophorus* species exhibited significant values for Moran's I. CNTI exhibited the greatest correlation at a distance of 60 m, but significant autocorrelation coefficients occurred up to a distance of 120 m. The CNUN also showed the largest autocorrelation at a distance of 60 m. However, statistically significant values for Moran's I occurred at a distance of 300 m. CNTE had a negative value for Moran's I at 480 m. This indicates a strong inverse relationship between abundance and distance in CNTE.

The common collared lizard had a significant value for Moran's I only at a distance of 60 m. Samples beyond that were statistically independent. EUOB showed significant Moran's I values for stations that differed by up to 420 m, yet the largest autocorrelation was detected for samples that differed by 60 m.

Of the two horned lizards, the similarity in abundance for PHCO was restricted to samples spaced 60 m apart, whereas PHMO exhibited a significant Moran's I at 450 m.

Uta stansburiana showed significant autocorrelations at 150 and 300 m; in fact, the autocorrelations were significant up to 180 m. This suggests a spatial dependence that spans 5-10 sampling stations.

Table 9. Analysis of Spatial Structure: Spatial Autocorrelation Along a 2700-Meter Transect[5]

Species	Distance Classes (in Meters)	Moran's I
CNTE	480	-0.26*
CNTI	60	0.54***
CNUN	60	0.51***
CRCO	60	0.26*
EUOB	90	0.52**
HOMA	No Autocorrelation	
PHCO	60	0.39**
PHMO	450	0.50**
UTSB	150	0.32**
	300	0.39**
SCMA	No Autocorrelation	
SCUN	No Autocorrelation	

The relationship between the variance in abundance to distance is presented in a series of semivariograms for each species (Figures 16-20).

[5]The maximum observed autocorrelation coefficient and associated distance class are presented in this table.

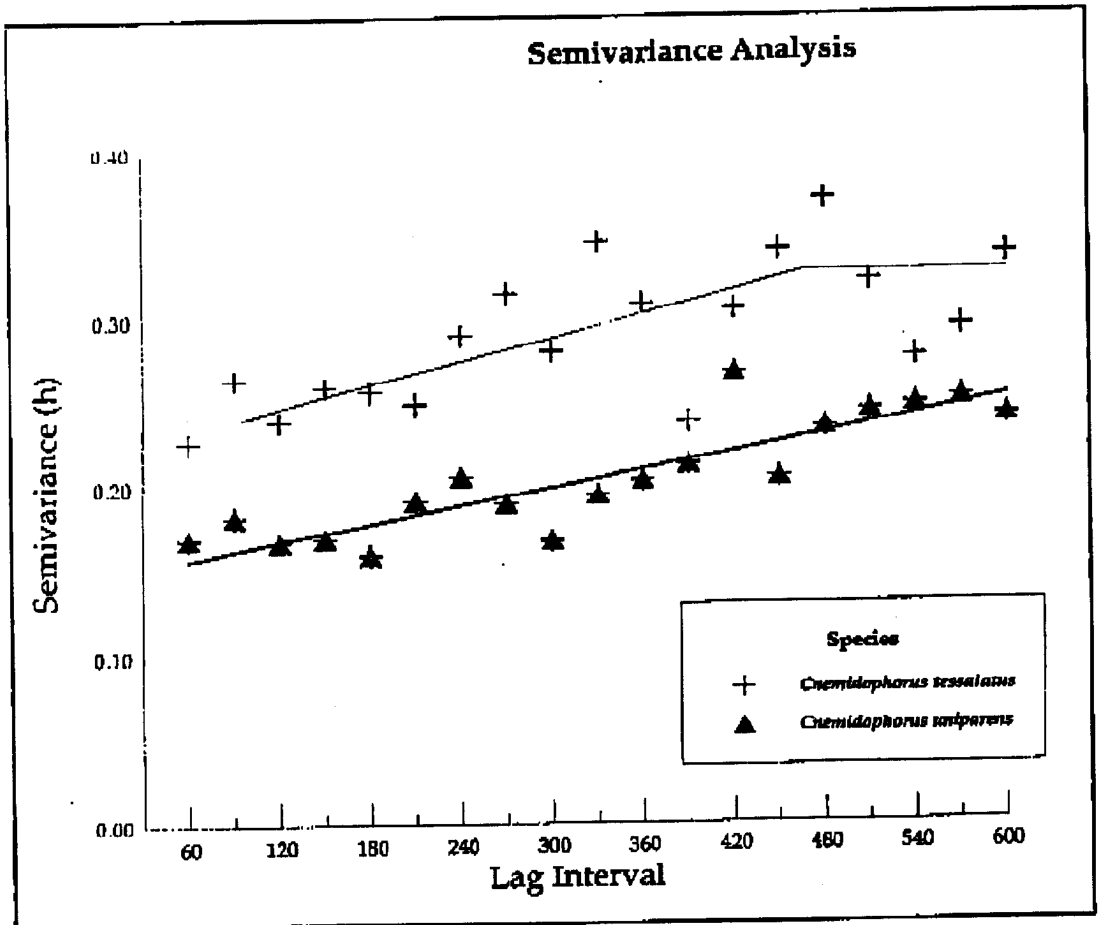

Figure 16. Semivariance Analysis–*C. tessalatus, C. uniparens*

C. tesselatus exhibited a classic spherical semivariogram (Table 10). The semivariance increased up to a distance of 470 m. Beyond that, the variance was independent of distance. In contrast, *C. uniparens* exhibited a linear semivariogram. Regardless of the lag interval and step distance employed in the semivariance analysis, no plateau was apparent. The linear model explained the most variance in the semivariogram. The semivariance values for CNTI were greater than those calculated for CNTE and CNUN (Figure 17). A linear/sill model best explained the spatial pattern. The range for CNTI was 542 m. All three *Cnemidophorus* species exhibited the Nugget Effect, which indicates that the sample interval (i.e., the distance between sample stations) is small relative to the phenomena that might be structuring the spatial relationship in abundance.

Table 10. Analysis of Spatial Structure: Semivariance Analysis

Species	Lag Interval (m)	Isotropic Semivariogram Model	r^2	Range A_0
CNTE	600	Spherical	0.48	470 m
CNTI	600	Linear/Sill	0.89	542 m
CNUN	600	Linear	0.79	600 m
CRCO	410	Linear/Sill	0.86	180 m
EUOB	1500	Gaussian	0.94	3206 m
HOMA	480	Linear	0.39	480 m
PHCO	510	Spherical	0.71	148 m
PHMO	360	Linear/Sill	0.73	210 m
UTSB	1000	Linear/Sill	0.77	705 m
SCMA	450	Spherical	0.55	219 m
SCUN	500	Linear	0.25	500 m

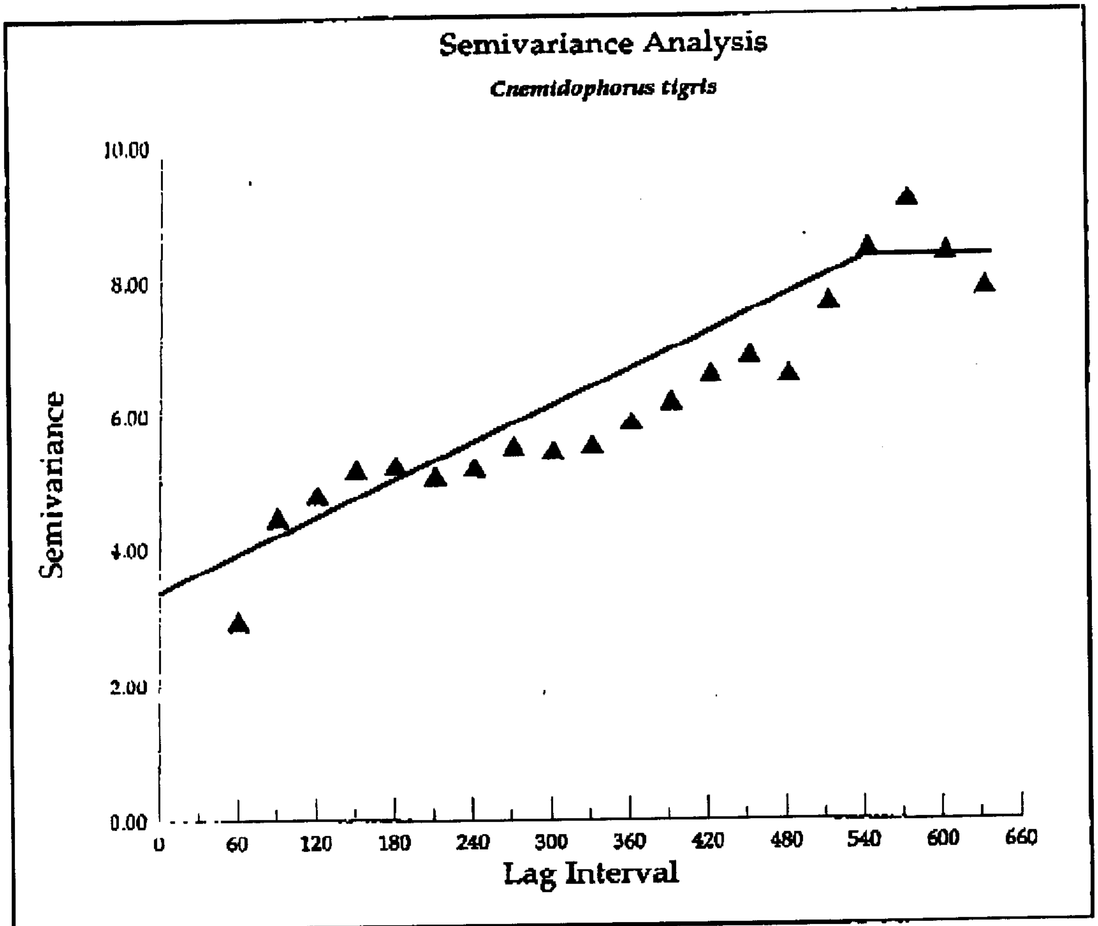

Figure 17. Semivariance Analysis—*C. tigris*

A linear/sill model best explained the pattern exhibited in the semivariance analysis for CRCO (Figure 18). Regardless of the lag interval used, the sill occurred at 180 m. The semivariogram for EUOB was best described by a gaussian model (Figure 20). No sill or plateau was evident; rather, the values for the semivariance manifested a gradual increase with increasing distance. The predicted range was actually greater than the length of the transect.

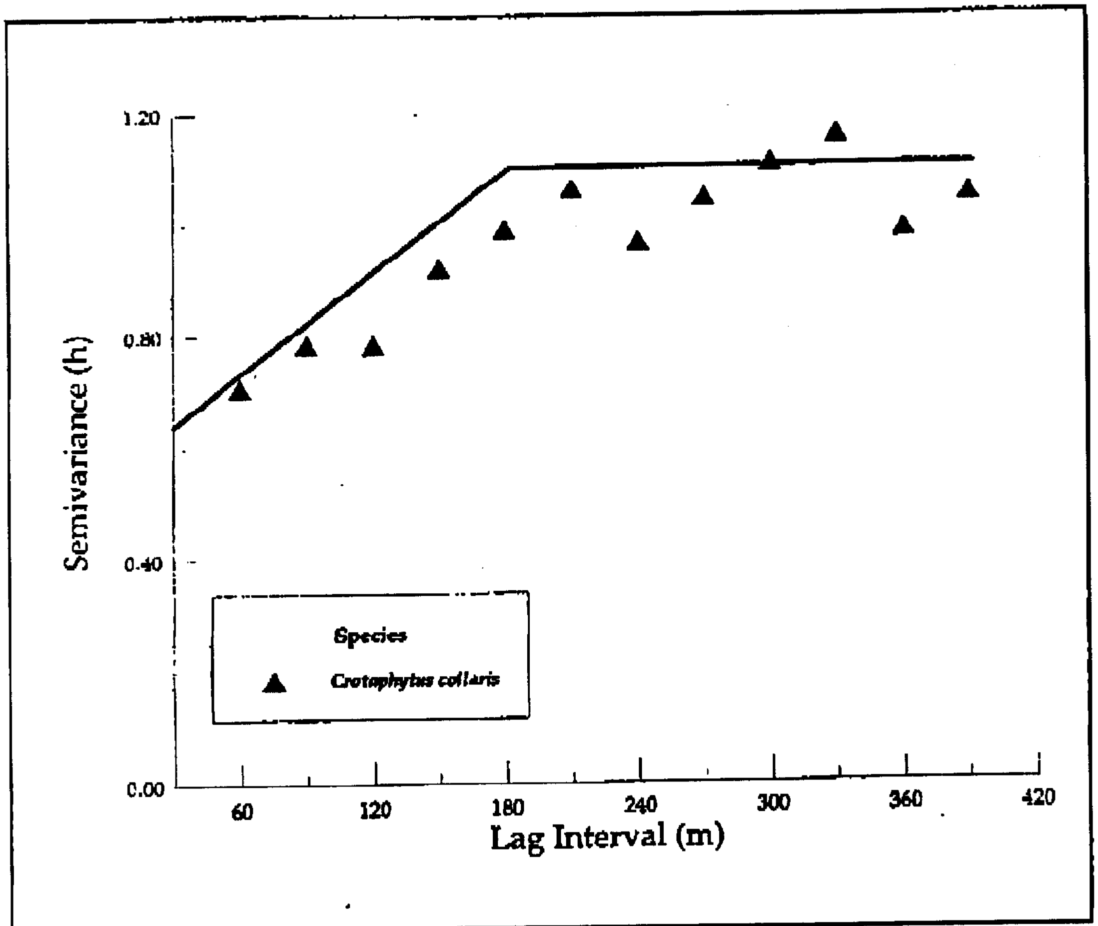

Figure 18. Semivariance Analysis--*C. collaris*

In contrast, the species HOMA, SCMA, and SCUN showed relatively weak spatial structure in the semivariograms. As shown in Figure 19, the shape of the semivariogram for all three species is essentially flat. Furthermore, the absolute values for the semivariance statistic are the lowest observed among all species.

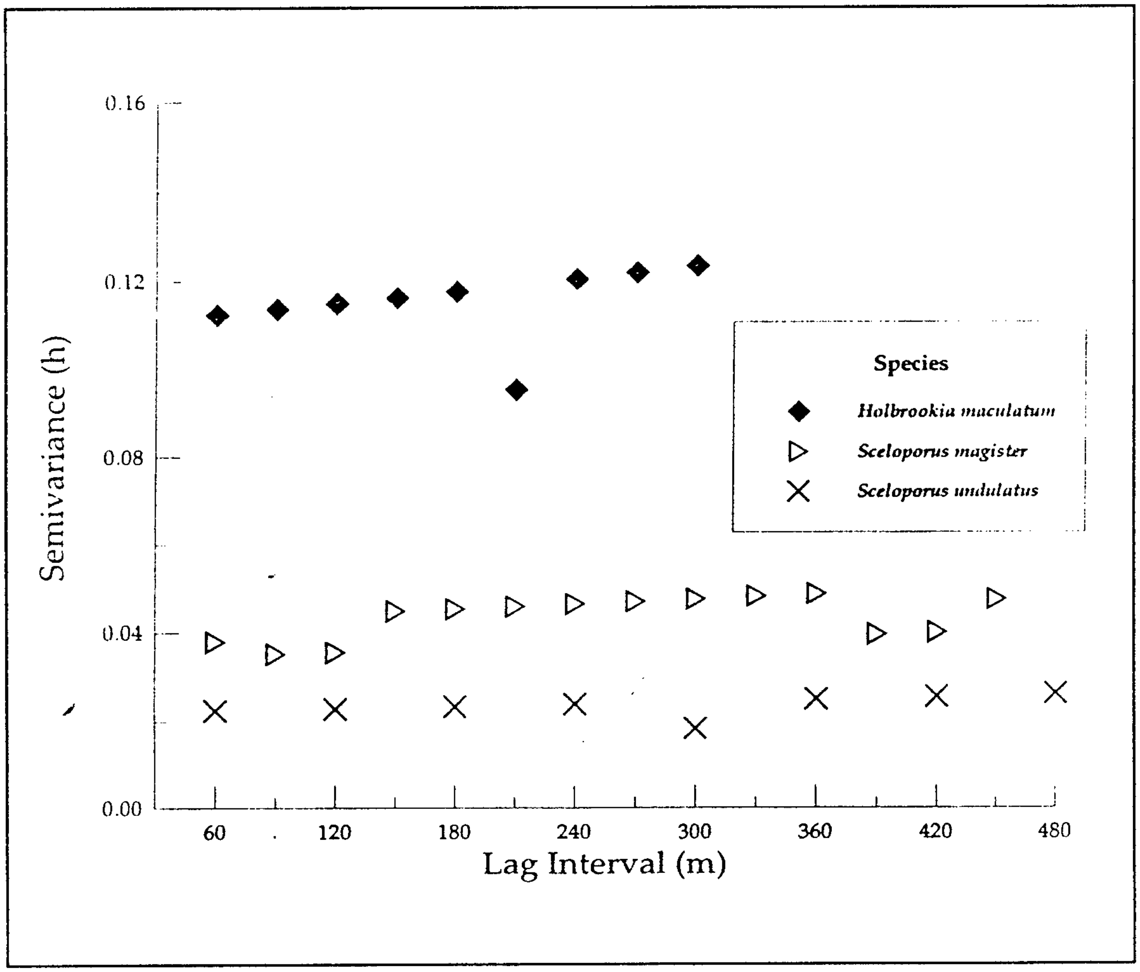

Figure 19. Semivariance Analysis--*H. maculatum, S. magister, S. undulatus*

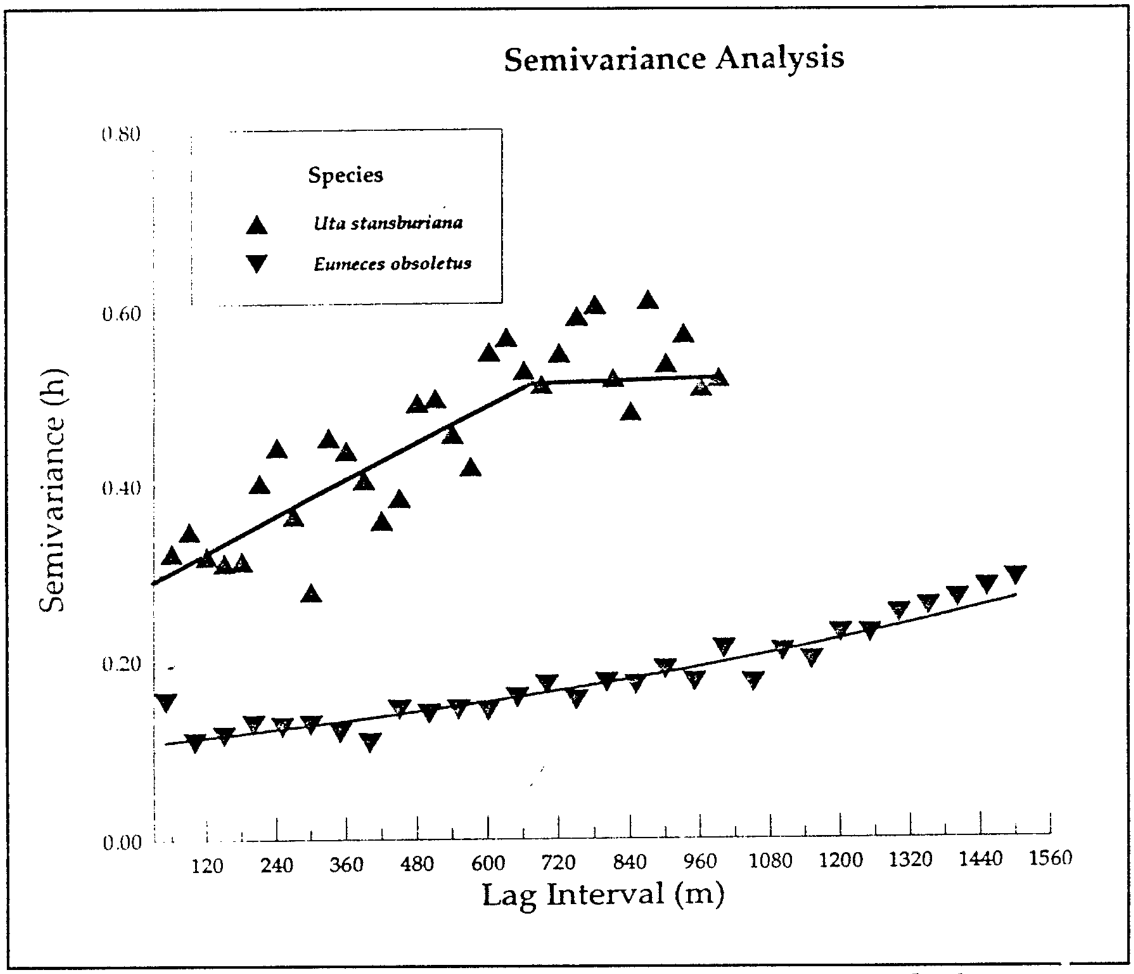

Figure 20. Semivariance Analysis--*U. stansburiana, E. obsoletus*

Both species of *Phrynosoma* exhibited semivariograms that had a plateau (Figure 21). The semivariogram for PHCO was best described by a spherical model (Table 10), whereas PHMO was best described by a linear/sill model. The amount of variance explained by the fitted models was roughly the same. Interestingly, the zone of influence for PHCO was smaller than that of PHMO. This result matches the pattern observed in the correlogram.

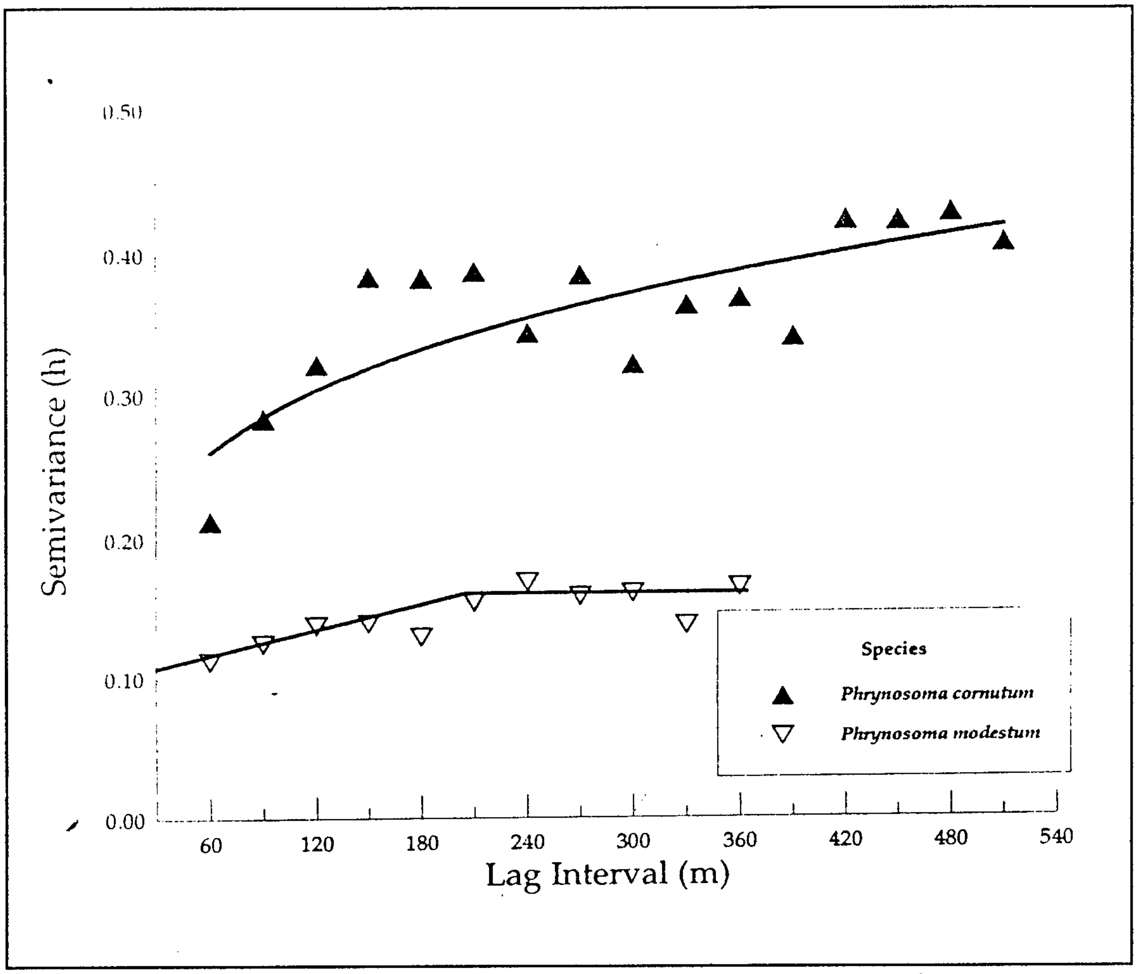

Figure 21. Semivariance Analysis--*P. cornutum, P. modestum*

Finally, the semivariogram for *Uta stansburiana* was best described by a linear/sill model with a range of 705 m (Figure 20).

4.0 Summary and Conclusions

4.1 Conceptual Framework for Arid-Land Characterization

4.1.1 Habitat Classification/Analysis

The UPGMA cluster analysis to determine similarity of stands in time and space indicated that by 1980, the original grassland and mesquite communities that were grazed had converged and had an 84% similarity. In 1935, the similarity was only 39%. In 1935, the exclosure dune area had a 9% similarity to grassland plots, but by 1980 this increased to 50%.

Spatial and temporal trends in transects for all areas are clearly shown by the PCA and DCA. Indirect gradient analysis indicates a decrease in black grama and forbs on Axis one and an increase in mesquite on Axis two. The first two axes explain 89% of the variance for data in the PCA analysis.

Species in the grazed grassland plots decreased from a mean of 14 in 1935 to a mean of nine in 1980, while species in the mesquite plots decreased from a mean of 13 to 10 over this same time period. Ten of the 15 forbs present in 1935 in the grazed mesquite and grassland areas were absent in 1980.

4.1.2 Species Diversity and Associations

Community types were clearly defined by the UPGMA cluster analysis done on the summary data for 1982-1984, using the synthetic cover class values provided in the Cornelius et al. (1991) paper. The results were very similar to those obtained by the use of actual cover data for individual years, indicating that cover class estimates may provide data that is very similar to actual cover measurements.

In the PCA analysis, plots from the same community types clustered together, but clear delineations would have been difficult to make without using the cluster analysis classification of stands.

Species richness ranged from a low of seven species per plot in the Playa community to a mean of 24 species per plot in the Mixed Basin Slope community. The percent frequency of species in plots ranged from a low of 4% for *Helianthus ciliaris*, which was restricted to the Playa community, to a high of 85% for *Erioneuron pulchellum*, which did not occur in the Playa community but was present in all other community types.

4.1.3 Distribution of Lizards

1) Eleven species had sufficient numbers of observations to conduct an analysis investigating the small scale spatial distribution patterns along a gradient. Some

evidence for spatial patterning was discerned by comparing abundance with transect station and vegetation zone.

2) Species diversity was lowest in the Playa/Grassland zones, highest in the Lower Piedmont Slope zone, and intermediate in all other zones.

3) Indirect gradient analysis revealed some clustering of species. Specifically, species were clustered based on the degree of openness of the environment.

4) A canonical correlation analysis revealed a significant association between lizard abundance and vegetation cover along the Jornada LTER control transect. Among the 11 species, CRCO, HOMA, SCAM, and SCUN showed little or no association with vegetation coverage.

5) The abundance and distribution of three species (HOMA, SCMA, and SCUN) was independent of sample distance. The remaining species showed significant evidence of spatial autocorrelation.

6) These results may be used to make predictions regarding the potential responses to environmental change. Despite the wide distribution of most species along the transect, the majority would show some changes in abundance with a shift in vegetation pattern. Although the species CRCO, HOMA, SCMA, and SCUN exhibited no association with vegetation cover, other factors or variables not included in this analysis may explain their distribution. These should be investigated in later analyses. Two species (EUOB and CNUN) showed patterns in their distribution which suggests that they might be especially sensitive to environmental change. Their position at the extreme end of the gradient and the relative specialized habitat requirements suggest that global climate change could result in a shift in their distribution or abundance.

7) The analyses presented in section 3.2.3 of this document should be considered preliminary; in fact, these analyses showed that the 30 m scale was insufficient to describe spatial patterns in abundance. The presence of the Nugget Effect in the semivariograms confirms this conclusion. Furthermore, the abundance data may be biased in part because of the differences in the ability of pitfall traps to capture different lizard species; that is, not all lizard species have similar capture probabilities. Thus, a combination of census methods are necessary to obtain more accurate estimates of lizard abundance. In addition, a two-dimensional sampling protocol should be used to better refine the spatial dependencies of lizard abundance. Nevertheless, this analysis demonstrates the types of analyses which can be used to link animal population variables with habitat characteristics. Also, the value of spatial analysis is emphasized. Most analyses of vertebrate abundance fail to incorporate a spatial component. The results from this analysis show that many species exhibit significant spatial autocorrelation.

5.0 Future Work

The Arid Lands Environmental Management team is an inter-disciplinary group, including NMSU participants from the Physical Science Laboratory (PSL), the Colleges of Agriculture and Engineering, and the Computing Research Laboratory, and government participants from two arid lands units of the U.S. Department of Agriculture/Agricultural Research Service (USDA/ARS)--the JER and the Southwest Watershed Research Center (SWRC). The team brings together experience in ecosystem management, range science, biotic and abiotic process modeling, complex systems, and computer science.

Proposals that have been submitted by this team or individual team members for work relative to the Information Support for Environmental Management project are listed in Table 11.

Table 11. Proposals Submitted for Future Work

Proposal Title	Submitted by	Submitted to	Proposal Award Status
An Environmental Workstation Based on a Self-Learning, Competitive Combinatorial System and Simple Process Models	Arid Lands Environmental Management team	Army Research Office (ARO) 94-BAA-078	Pending
Information Visualization for the Management of Snakeweed: A Demonstration Project	NMSU College of Agriculture, PSL	International Arid Lands Consortium (IALC)	Funded
Simulation and Visualization of Snakeweed Seedling Survival, Distribution, and Abundance	NMSU College of Agriculture	National Research Initiative (NRI)	Pending
Assessing Landscape Change as a Component for Sustainable Rangeland Management	NMSU College of Agriculture, PSL	NRI	Pending
Site Resistance to the Invasion of Piñon-Juniper	NMSU College of Agriculture	Rangeland Research Grants Program, Cooperative State Research, Education, and Extension Service	Pending

Proposal Title	Submitted by	Submitted to	Proposal Award Status
Physiognomic Analysis of Ecosystem Change Induced by Increasing Atmospheric CO_2 on Plant Competition in a Semi-Arid Desert	NMSU College of Agriculture	NSF/DOE/NASA/USDA Joint Program on Terrestrial Ecology and Global Change	Pending

Overviews of these proposals are provided in the following sections.

5.1 An Environmental Workstation Based on a Self-Learning, Competitive Combinatorial System and Simple Process Models Proposal

This proposal addresses the U.S. Army's requirement for *Dynamic Landform Analysis and Modeling* under the *Conservation* thrust of the Environmental Quality Research and Development Program. The Arid Lands Environmental Management team at NMSU proposes to undertake exploratory research into the development and use of a self-learning, complex systems approach to predicting landscape change as a control element within a data-driven, environmental management system.

The Arid Lands Environmental Management team's approach utilizes a strategy called the On-Line Control (OLC) paradigm, which iteratively creates and refines indicators and controls based on observable changes in a monitored agricultural system. In land management with OLC, the role of models in management changes from providing a single long-term prediction of ecosystem change to providing a spanning set of possible near-term ecosystem trajectories to use in on-line control. Even with this improvement, the computation of trajectories is a human function, aided by process models for individual system components. This proposal explores the alternative, a complex systems solution of direct landscape modeling using a Self-Learning Landscape (SLL) based on theoretical work currently funded by the National Science Foundation (NSF) and substantial past Army funding for the development of exploratory military intelligence information fusion technology. The primary objectives of this project are to:

- characterize ecosystems from incomplete data through interpolation based on induced competitive interactions;
- construct tools for the management of ecosystems based on advanced, unconventional, and nonintrusive data sources (e.g., photographic and remotely sensed data);

- demonstrate an environmental workstation using the tools developed in this proposal that allows "what-if?" emulation of the local landscape under human-induced perturbations.

The SLL system will learn to synthesize sets of global hypotheses concerning the evolution of habitat connectivity and interactivity from past and current ground and satellite data. Learning criteria will include applicability to management objectives, scale, and sensitivity to possible ecosystem dynamics (e.g., it may be expected that spanning sets of hypotheses needed for monitoring metastable systems will be different from those needed for stable systems). Typical data will be extracted from the 80-year record from the JER and the 30-year record from the SWRC. It will include information on diversity, community structure, niche structure, dispersal channels, and abiotic resources. The data will be presented in a GIS format.

The system exploration and development approach will mirror the required stages anticipated for system use. With a self-learning logistic control module, the environmental workstation will pass through a cycle of

i) initial calibration through learning possible trajectories in historical data;

ii) trajectory projection;

iii) periodic adjustment triggered by anomalous field data; and

iv) recalibration, given a sequence of poor predictions.

Accordingly, the OLC and SLL methodology will be explored through

i) a calibration and tracking study using simulated data from simplified process models;

ii) a calibration and tracking study using process models for calibration and field data for tracking; and

iii) calibration and tracking using field data, with simulation data for system tuning.

The spatial nature of change in the local landscape will be presented in a GIS format for user analysis.

5.2 Information Visualization for the Management of Snakeweed: A Demonstration Project

The NMSU College of Agriculture and PSL propose to develop a system that will enable visualization of landscapes associated with snakeweed. The visualization will be user interactive and will serve as an environmental workstation for snakeweed management. To accomplish this, all relevant information about the snakeweed species *Gutierrezia sarothrae* (Pursh) and *G. microcephala* (Gray) will be registered and archived into the system. This information can later be accessed for visualization. The target clientele in this initial demonstration will be resource managers familiar with the problem of snakeweed management and the Agricultural Extension Service, who can provide testing.

Specific objectives of the demonstration project are to:

- Demonstrate a data management system for snakeweed;
- Develop an information registration and retrieval program that will be visually indexed to legacy data;
- Visualize output from phenology models predicting growth and development from inputs of temperature, moisture, soil type, topology, and location;
- Visualize density as predicted for models associated with dynamic processes; and
- Index data sets.

The demonstration project will create a low-resolution, terrain visualization system using atmospheric background, level II digital elevation maps (DEM), and LANDSAT data bands. The LANSAT data bands are draped on the DEM data set to produce a 3-D terrain image. This will be backgrounded against the atmospheric layer, sun lighting, and clouds keyed to date and time of day. All points are geo-referenced so that this background information becomes the index for data registration. Other information such as roads, wells, pasture fences, and research plots will be added as GIS layers depending on scale as indexed by altitude of the curser. Photographic records such as orthophotos on 1:12,000 scale dating back to 1990, aerial photographs dating back to 1940, and film transparencies at one meter resolution dating back to 1944 are commercially registered and available at a nominal cost. Research data and process models will be indexed into the system.

This approach will provide a geo-referenced database over time for all available snakeweed data. Software to interact with this data and visualize either monitored or predicted results will provide an environmental workstation for resource managers associated with the snakeweed problem. The users of the system will be able to visualize past snakeweed patches as well as predict future patches resulting from management

strategies. The workstation will be maintained by the Agriculture Experiment Station during the research phase of resolving the snakeweed problem.

5.3 Simulation and Visualization of Snakeweed Seedling Survival, Distribution, and Abundance

Weed ecologists often use the spatial and temporal association of weeds to evaluate their competitiveness in a plant community. Quadrat sampling and mapping are commonly employed. These techniques are effective but labor intensive when, or if, all of the information they contain is to be used in an analysis. This type of legacy data often remains in files after the principal treatments are evaluated and published. This proposal involves using a methodology to capture temporally and spatially coordinated data to process over 2000 quadrats and extract the spatial information, thereby eliminating the labor intensive manual processing of the data. Digital capture of spatial data will allow for ease in use of standard statistical tests, but will provide for the use of geostatistical analysis and for input into GIS. Primary field records will be permanently stored on CDROM with network share capabilities. The information extracted will be used for the development of simulation of snakeweed survival, distribution, and abundance. It is anticipated that a discrete component approach (Haynes, 1975) will be used, requiring monitored inputs of a snakeweed survey, soil classification, topology, location, on-line meteorological information, and defined management strategy. Output from the Snakeweed Management Model will be visualized on a landscape scale as defined by the user. The original work from which this model was constructed will continue through 1996 and will be used for the model's validation. The models and original field work will be made available on a World Wide Web (W3) network over the Internet. A snakeweed workstation will be set up and made available to the snakeweed research project at NMSU.

5.4 Assessing Landscape Change as a Component for Sustainable Rangeland Management

The goal of maintaining sustainable rangeland production systems requires grazing practices that maintain vegetation quality and soil stability over time. Fluctuations in rangeland condition have been interpreted in reference to the Rangeland Succession Model. This model supposes a given rangeland has a single persistent state (the climax) in the absence of grazing. The goal of management is to adjust stocking rates to balance grazing pressure and successional tendency. Current ecological theory allows for alternative multiple stable states, discontinuous and irreversible transitions, non-equilibrium communities, and stochastic effects in succession (Westby et al., 1989). Vegetation states are identifiable plant associations that exist in time and space. Stable vegetation states possess demographic inertia and tend to persist for a long time; transient vegetation states are demographically unstable (Westby et al., 1989). Transitions are processes which drive conversion from one vegetation state to another. The use of the

state-transformation representation of vegetation change can be used to identify potential risks and opportunities for sustainable rangeland management.

The history of rangeland condition in the Chihuahuan Desert indicates that once-productive grasslands have been replaced by shrub communities. Long-term quadrat records on the JER indicate that grass cover fluctuated with climate and grazing from 1915 until 1950. The drought of 1951-1956 resulted in long-term replacement of grasslands by shrub communities. Little is known about the relationship of vegetation distribution and succession to climatic change, management activities, natural herbivory, environmental feedback mechanisms, and ecosystem stability.

The goal of this research is to identify vegetative states and transforming forces that have resulted in vegetation change in the Jornada basin during the 1940-1994 time frame. A conceptual state transition model with grassland and eroded shrubland as terminal states and grassland-snakeweed-shrub mixture as intermediate states will be evaluated. These states can be identified and positioned in time and space using available legacy data.

Effective management of a semi-arid landscape implies employment of a management strategy that maximizes the economic and social gains but does not degrade the resource. However, the basic functioning of these systems are complex, relying on inter-dependent ecological cycles that are tightly linked. Sufficient stress on one system can produce unexpected and devastating consequences in others.

This type of management requires knowledge of the consequences of the management strategy and is based on the assumption that change will result from both anthropomorphic and natural events. The management of any system requires that change can be measured in response to management inputs; that is, to track the evolution of the system over an appropriate time scale. In this research, change will be measured directly using legacy data from quadrats maintained since 1915 on the JER, aerial photographs dating back to 1944, and satellite imagery dating back to 1980. Detailed information exists on weather, grazing intensity, species composition, and state-wide surveys for grasshoppers and several woody brush species. Using a GIS approach and digital orthophotographs to geoposition the physiognomical appearance of plant associations (patches), observed changes will be correlated to changes in species associations.

5.5 Site Resistance to the Invasion of Piñon-Juniper

The piñon-juniper rangeland complex occupies more than 47 million acres in the western United States, 20% of which is in New Mexico. Great environmental variability occurs over this region; this variability is a significant factor in evaluating the productivity of the piñon-juniper habitat type.

Since 1981, scientists have been evaluating management plots at four sites in New Mexico. Detailed records on crown cover, spatial position of each tree, insect damage,

seed production, disease, tree growth, and herbaceous vegetation growth have been obtained.

Two significant problems have resulted from this study. The first problem is that although much of the information has been used to economically evaluate alternate production strategies, many of the original plot records which contain the spatial information have not been analyzed. This is due to the complexity of capturing this graphic information in a digital format. The other problem is typical of plot studies in general; that is, how to extrapolate to larger, open systems where the environment is more heterogeneous.

An extensive database containing the original plot measurements has been archived, which has preserved the spatial and temporal aspects of the data. It is necessary to capture this information in digital format, register it in a universal geopositioning framework, and bring it on-line. This will provide a base to test hypotheses and provide an opportunity to connect the information to other archival data sets. Such an archive exists with the Soil Conservation Service (SCS) as temporally and geographically registered photographs dating back to 1942. This data set provides an excellent opportunity to measure and statistically analyze the slow changes that have taken place in piñon-juniper woodlands over the last 53 years. The Earth Data Analysis Center (EDAC) at the University of New Mexico has registered the remote imagery for the state of New Mexico. Their standard record includes the following categories for each image: Agency, Latitude, Longitude, State/County, Date of Coverage, Project Code, Scale, Focal Length, Film Type, Sensor Class, Percent Cloud Cover, Percent Quad Cover, and Remarks. This is a computerized listing and can be accessed with a specific criteria set. Over 900 scenes were obtained for White Sands alone.

The objectives of this project are to:

- Develop a method to classify sites for the optimization of products from piñon-juniper woodlands and rangeland;
- Archive legacy data sets for landscape change in the piñon-juniper woodlands and rangeland emphasizing the connectivity of time and space;
- Develop an unsupervised data extraction methodology for photographic records of piñon-juniper landscapes;
- Use Global Positioning System (GPS)/GIS techniques with surveying and analysis software to classify landscapes for elevation, slope, soil type, rainfall, management strategy, and availability and location of water tanks; and
- Develop a GIS layer displaying rate of piñon-juniper crown closure over time to show site resistance to piñon-juniper invasion.

5.6 Physiognomic Analysis of Ecosystem Change Induced by Increasing Atmospheric CO_2 on Plant Competition in a Semi-Arid Desert

This proposal will identify and quantify changes that have taken place over the last 50 years on the northern edge of the Chihuahuan Desert, a physiographic zone between the hot Chihuahuan Desert to the south and the cold Colorado Plateau Semidesert, an eastern extension of the Great Basin Desert, to the north. The Chihuahuan Desert is the largest North American desert, covering 175,000 square miles and constituting 37 percent of the total North American desert area. Of the four finger-like extensions in the United States, the most northern is found in the Rio Grande Valley, reaching as far north as Socorro, New Mexico. The valley, which extends from the Big Bend National Park in Texas to Socorro, is approximately 800 kilometers long. It has a fairly uniform soil type and a consistent rise in elevation, with distinct borders defined by slopes and mountains. It is ideally suited for exploration of techniques that can be used to detect and measure controlling mechanisms and ecosystem response to altered conditions of atmosphere and climate. The valley consists of rangeland and irrigated agriculture over its entire length. The linear nature of this valley, located on the northern and southern fringe of two large and well-defined ecosystems, will allow for the measurement of distribution on a two-dimensional axis. The linearity of this study site will allow for a detailed analysis of plant distribution over the last 50 years. Plant associations in this zone are composed of economically important grasses, woody shrubs, and desert succulents. The ability of the latter two groups to take advantage of increased atmospheric CO_2 and warmer temperature may shift the competitive advantage within the ecosystem toward shrub species at the expense of grass species.

During the last 100 years, the northern edge of the Chihuahuan Desert has undergone change induced by extreme draught, other climatic events, and agricultural management practices. The change has been well-documented, but the information is fragmented and discontinuous in time and space; therefore, it is inaccessible as a holistic database.

The NMSU College of Agriculture and PSL have participated in a data rescue project for the USDA funded by the U.S. Army, Corp. of Engineers. This project involved the digital capture of vegetation plot records from 1914 to 1994. Over 7,000 plot records were digitally captured, verified, and visualized with animation and plant growth models by PSL. Similar plot records of shorter duration have been found in many other locations. In addition, photographic records dating back to 1896 and aerial photographs dating back to 1932 have been located. Since 1950, comprehensive aerial records of the vegetation plots have been maintained. MSS satellite imagery dating back to 1972 is also available. Although Department of Defense (DoD) imagery started 1952, access to this information is limited. Graduate theses, student projects, reports, unpublished and published papers and environmental impact analyses have been produced during this period. Numerous studies on soil pedology, carbon dating, and analysis of pack rat middens have been conducted, and several continue today.

The key to using this information is to properly position the study in time and space. In this proposal, the geopositioning of archival information is emphasized, as well as the digital capture of records and their incorporation into a database. This will overcome the lack of connectivity in time and space. After the database is connected by location, time, scale, and quality, it becomes useful in the long-term analysis of environmental change. Sampling the data set can be conducted with unsupervised computer interpretation and presented as information layers in GIS analysis. At this point, it becomes an increasingly important tool to validate and develop landscape models to address environmental change directly and partition causal affects.

This proposal addresses and contributes to the understanding and prediction of ecosystem processes affected by altered atmospheric CO_2 and different climatic conditions, nutrient constraints, land use patterns, and anthropocentric factors such as grazing intensity and agriculture production practices. By using a 50-year time interval, both distributions and patterns produced within plant associations should be observable and sufficiently quantifiable to assist in model development and statistically validate specific environmental change agents.

6.0 Glossary

Following is an alphabetical listing of all acronyms, abbreviations, and their meanings as used in this document.

ARO	Army Research Office
CA	Correspondence Analysis
CIERA	Coalition for International Environmental Research and Assistance
CNTE	*Cnemidophorus tesselatus*
CNTI	*Cnemidophorus tigris*
CNUN	*Cnemidophorus uniparens*
CRCO	*Crotaphytus collaris*
DCA	Detrended Correspondence Analysis
DMA	Digital Elevation Maps
DoD	Department of Defense
EDAC	Earth Data Analysis Center
EUOB	*Eumeces obsoletus*
GIS	Geographic Information System
GPS	Global Positioning System
HOMA	*Holbrookia maculata*
IALC	International Arid Lands Consortium
JER	Jornada Experimental Range
km	Kilometer
LTER	Long-Term Ecological Research
m	Meter(s)
MVSP	Multivariate Statistical Package
NSF	National Science Foundation
NMSU	New Mexico State University
OLC	On-Line Control
OU	Ohio University
PCA	Principal Components Analysis
PHCO	*Phrynosoma cornutum*
PHMO	*Phrynosoma modestum*
PSL	Physical Science Laboratory
SCMA	*Sceloporus magister*
SCS	Soil Conservation Service
SCUN	*Sceloporus undulatus*
SD	Standard Deviation
SLL	Self-Learning Landscape
SWRC	Southwest Watershed Research Center
UPGMA	Unweighted Pair Group Mean Analysis
USDA/ARS	U.S. Department of Agriculture/Agricultural Research Service

UTSB	*Uta stansburiana*
W3	World Wide Web
2-D	Two-Dimensional

APPENDIX A
REFERENCES

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APPENDIX B

HABITAT CLASSIFICATION FREQUENCY/ANALYSIS DATA

```
*********************
*****  M V S P  *****
*********************
Ver. 2.1e

Date of analysis - January 31, 1995
Time of analysis -  2:17:47pm

Input file name  - A:\USDA1.MVS
Output directed to printer
```

DIVERSITY INDICES
================

USDA1

File of 28 rows x 12 columns

RAW DATA

	1935	1950	1955	1980	1935g	1950g
arsp	0.3000	0	0	0	0	0
boer	27.2000	19.5000	0.9000	0	70.9000	56.3000
erpu	0	0	0	17.3000	0	0
mupo	0.3000	0	0.4000	0.7000	0	0
pasp	0	0	0	0	0	0
spco	0	0	0.1000	0	0	0
spfl	6.3000	2	9.6000	15.5000	3.7000	2.8000
assp	0.1000	0	0	0	0.8000	0
caja	0.1000	0	0	0	1.2000	0
caba	0.1000	0	0.4000	0.6000	0.2000	0.5000
chso	0	3.2000	0	0	0	0
crpo	1.7000	8.9000	7.6000	1.5000	0.5000	8.3000
dasp	0	0	0	0	0	0
eual	0	0	0	0	0	4.3000
hogl	0	0	0	0.1000	0.5000	2.9000
hyro	1.1000	0	0	0	2.5000	0
lefe	0	0	0.9000	0	13.9000	0.3000
mele	0	0	0	0	0	0
memu	0.7000	0	0	0	2.9000	0
psta	0	0	0	0	0	0
soel	0	0	0	0	0	0
spin	0	0	0	0.5000	0	0
atca	0	0	0	0.1000	0	0
epto	0.1000	0	0	0	0.3000	0
prgl	16.4000	25.3000	26.9000	32.8000	2.5000	8.9000
yuel	0	0	0	0	1.1000	1.7000
xasa	3.7000	4.8000	4.1000	30.4000	5.2000	2.3000
sema	0	0	0	0	0	0

	1955g	1980g	1935d	1980d	1935id	1980id
arsp	0.2000	0	0.4000	0	3.4000	0
boer	8.6000	0	0.1000	0	8.4000	0
erpu	0.2000	17.9000	0	0.3000	0.1000	6.1000

mupo	0.3000	0	2.3000	0.2000	0.0001	0.0001
pasp	0.3000	0	0	0	0	0
spco	0	0	0	0	0	0
spfl	7.9000	20.5000	5.2000	17.4000	4.4000	9.4000
assp	0	0	0	0	0.1000	0
caja	0	0	0	0	0.1000	0
caba	2.6000	8.5000	0	0.2000	0.2000	1.9000
chso	0	0	0	0	0	0
crpo	9.7000	8.6000	0	0	0	0
dasp	0.6000	0	0	0	0	0
eual	0	0	0	0	0.2000	0
hogl	1.1000	0.6000	0	0	0	0
hyro	0	0	0	0	1.9000	0
lefe	4.5000	0	0	0	0.2000	0
mele	0.9000	0	0	0	0.8000	0.1000
memu	0	0	0	0	0	0
psta	0.3000	0	0	0	0	0
soel	0	0.6000	0	0	0	0
spin	0.2000	0	0	0.1000	0	0
atca	0	0	0	0.5000	0	0.0001
epto	0	0	0	0	0	0
prgl	12.8000	24.8000	71.3000	70	0.6000	4.1000
yuel	1.4000	0.6000	0.1000	0	0.5000	0
xasa	2.9000	28.8000	1.8000	3.2000	15.6000	14.2000
sema	0	0	0.3000	0.2000	0	0

Log base 10

SIMPSON DIVERSITY INDEX

Sample	Index	Evenness	Number of species
1935	0.6959	0.6247	13
1950	0.7313	0.9398	6
1955	0.6687	0.7008	9
1980	0.7507	0.7507	10
1935g	0.5364	0.4680	14
1950g	0.5754	0.5754	10
1955g	0.8697	0.7068	17
1980g	0.8177	0.8569	9
1935d	0.2321	0.2570	8
1980d	0.3896	0.4083	9
1935id	0.7582	0.6447	15
1980id	0.7497	0.8301	8

Analysis finished at - 2:17:49pm

```
*********************
*****  M V S P  *****
*********************
Ver. 2.1e

Date of analysis - December 26, 1994
Time of analysis -  3:10:26pm

Input file name  - A:\USDA1.MVS
Output directed to printer


DIVERSITY INDICES
=================

USDA1

File of 28 rows x 12 columns


Log base 10


SHANNON DIVERSITY INDEX

Sample          Index   Evenness  Number of species
    1935        0.6334    0.5686          13
    1950        0.6331    0.8136           6
    1955        0.5948    0.6233           9
    1980        0.6477    0.6477          10
   1935g        0.5598    0.4885          14
   1950g        0.5772    0.5772          10
   1955g        0.9398    0.7637          17
   1980g        0.7693    0.8062           9
   1935d        0.2348    0.2600           8
   1980d        0.3190    0.3343           9
  1935id        0.7277    0.6187          15
  1980id        0.6254    0.6925           8

Analysis finished at -  3:10:26pm
```

```
*********************
*****  M V S P  *****
*********************
Ver. 2.0f
```

Date of analysis - October 26, 1994
Time of analysis - 4:45:03pm

Input file name - A:\USDA.MVD
Output directed to printer

CLUSTER ANALYSIS
================

USDA - PERCENT

File of 8 rows x 8 columns

INPUT MATRIX

	1935	1950	1955	1980	1935g	1950g	1955g	1980
1935	100	71.100	53.945	35.914	48.448	58.743	58.437	33.3
1950	71.100	100	69.634	41.176	34.491	53.947	59.560	46.04
1955	53.945	69.634	100	57.048	16.295	33.333	63.947	57.4
1980	35.914	41.176	57.048	100	11.862	17.146	34.416	84.2
1935g	48.448	34.491	16.295	11.862	100	68.380	30.492	12.16
1950g	58.743	53.947	33.333	17.146	68.380	100	47.899	24.09
1955g	58.437	59.560	63.947	34.416	30.492	47.899	100	43.7
1980g	33.373	46.048	57.478	84.221	12.160	24.096	43.773	1

UNWEIGHTED PAIR GROUP AVERAGE METHOD

NODE	GROUP 1	GROUP 2	SIMILARITY	NUMBER OF OBJECTS IN FUSED GROUP
1	1980	1980g	84.221	2
2	1935	1950	71.100	2
3	1935g	1950g	68.380	2
4	1955	1955g	63.947	2
5	NODE 2	NODE 4	60.394	4
6	NODE 5	NODE 1	43.653	6
7	NODE 6	NODE 3	32.409	8

Analysis finished at - 4:45:06pm

```
                                      +--------------------------------- 1935
                           +----------|
                           |          +--------------------------------- 1950
        +------------------|
        |                  |   +------------------------------------- 1955
        |                  +---|
        |                      +------------------------------------- 1955g
+-------|
|       |                                          +--------------- 1980
|       +------------------------------------------|
|                                                  +--------------- 1980g
|
|                                  +--------------------------------- 1935g
+----------------------------------|
                                   +--------------------------------- 1950g
```

```
*********************
*****  M V S P  *****
*********************
Ver. 2.1e

Date of analysis - October 28, 1994
Time of analysis - 11:55:49am

Input file name  - A:\USDA2.MVD
Output directed to printer


CLUSTER ANALYSIS
================

USDA2 - PERCENT

File of 4 rows x 4 columns


UNWEIGHTED PAIR GROUP AVERAGE METHOD
```

NODE	GROUP 1	GROUP 2	SIMILARITY	NUMBER OF OBJECTS IN FUSED GROUP
1	1935d	1980d	89.1705	2
2	1935id	1980id	54.7753	2
3	NODE 1	NODE 2	17.9580	4

Analysis finished at - 11:55:51am

```
*********************
*****  M V S P  *****
*********************
Ver. 2.1e

Date of analysis - October 28, 1994
Time of analysis - 11:55:34am

Input file name  - A:\USDA2.MVS
Output directed to printer


SIMILARITY AND DISTANCE COEFFICIENTS
====================================

USDA2

File of 17 rows x 4 columns



PERCENT SIMILARITY
```

	1935d	1980d	1935id	1980id
1935d	100	89.1705	12.6497	18.9421
1980d	89.1705	100	13.3230	26.9173
1935id	12.6497	13.3230	100	54.7753
1980id	18.9421	26.9173	54.7753	100

```
Analysis finished at - 11:55:37am
```

```
                                                                     +---------- 1935d
+--------------------------------------------------------------------|
|                                                                    +---------- 1980d
|
|                              +---------------------------------------------- 1935id
+------------------------------|
                               +---------------------------------------------- 1980id
```

```
*********************
*****  M V S P  *****
*********************
Ver. 2.1e

Date of analysis - December 21, 1994
Time of analysis -  5:09:19pm

Input file name  - A:\USDA1.MVD
Output directed to printer
```

CLUSTER ANALYSIS
================

USDA1 - PERCENT

File of 12 rows x 12 columns

UNWEIGHTED PAIR GROUP AVERAGE METHOD

NODE	GROUP 1	GROUP 2	SIMILARITY	NUMBER OF OBJECTS IN FUSED GROUP
1	1935d	1980d	89.1705	2
2	1980	1980g	84.2205	2
3	1935	1950	71.1002	2
4	1935g	1950g	68.3805	2
5	1955	1955g	63.9469	2
6	NODE 3	NODE 5	60.3939	4
7	1935id	1980id	54.2186	2
8	NODE 2	NODE 1	44.4576	4
9	NODE 6	NODE 8	41.8349	8
10	NODE 9	NODE 7	31.1081	10
11	NODE 10	NODE 4	26.2417	12

Analysis finished at - 5:09:23pm

```
                                         +-------------------------- 1935
                               +---------|
                               |         +-------------------------- 1950
             +-----------------|
             |                 |  +--------------------------------- 1955
             |                 +--|
             |                    +--------------------------------- 1955g
   +---------|
   |         |                                       +-------------- 1980
   |         |  +------------------------------------|
   |         |  |                                    +-------------- 1980g
   |         +--|
   |            |                                        +---------- 1935d
   |            +----------------------------------------|
   |                                                     +---------- 1980d
+--|
|  |                     +------------------------------------------ 1935id
|  +---------------------|
|                        +------------------------------------------ 1980id
|
|                                     +----------------------------- 1935g
+-------------------------------------|
                                      +----------------------------- 1950g
```

```
*********************
*****  M V S P  *****
*********************
Ver. 2.1e

Date of analysis - December 21, 1994
Time of analysis -  5:09:58pm

Input file name  - A:\USDA1.MVS
Output directed to printer
```

PRINCIPAL COMPONENTS ANALYSIS
============================

USDA1

File of 28 rows x 12 columns

Tolerance of eigenanalysis set at 1.0E-0006

CENTERED COVARIANCE MATRIX

AXIS	EIGENVALUE	PERCENT OF TOTAL	CUMULATIVE PERCENT
1	871.807	62.91	62.91
2	357.516	25.80	88.71
3	108.810	7.85	96.56
4	21.580	1.56	98.12
5	13.260	0.96	99.08
6	6.964	0.50	99.58
7	1.672	0.12	99.70
8	1.609	0.12	99.82
9	0.522	0.04	99.85
10	0.507	0.04	99.89
11	0.380	0.03	99.92
12	0.247	0.02	99.93
13	0.230	0.02	99.95
14	0.228	0.02	99.97
15	0.169	0.01	99.98
16	0.064	4.6E-0003	99.98
17	0.057	4.1E-0003	99.99
18	0.042	3.0E-0003	99.99
19	0.028	2.1E-0003	99.99
20	0.025	1.8E-0003	100.00
21	0.017	1.2E-0003	100.00
22	0.013	9.7E-0004	100.00
23	0.013	9.2E-0004	100.00
24	0.008	5.4E-0004	100.00
25	0.008	5.4E-0004	100.00
26	0.004	2.5E-0004	100.00
27	0.002	1.2E-0004	100.00
28	8.3E-0004	6.0E-0005	100.00

EIGENVECTORS (COMPONENT LOADINGS)

	PLOT	AXIS 1	AXIS 2	AXIS 3	AXIS 4	AXIS 5
ARSP	A	0.0022	-0.0165	-0.0272	-0.1083	0.0629
boer	B	0.7194	0.5649	0.3803	0.0200	0.0789
erpu	C	-0.0660	-0.1970	0.4995	0.1523	0.0228
mupo	D	-0.0123	0.0146	-0.0076	-0.0043	0.0013
pasp	E	0	0	0	0	0
spco	F	0	0	0	0	0
spfl	G	-0.1240	-0.0968	0.3170	0.2912	-0.5486
assp	H	0.0049	0.0040	0.0018	-0.0003	0.0011
caja	I	0.0074	0.0060	0.0027	-0.0004	0.0016
caba	J	-0.0114	-0.0614	0.1007	0.2810	-0.1327
chso	K	0.0012	0.0031	-0.0179	0.0337	0.0829
crpo	L	0.0218	-0.0323	-0.0389	0.8328	0.2157
dasp	M	-1.9E-0005	-0.0021	-0.0007	0.0002	-0.0002
eual	N	0.0187	0.0162	0.0027	0.1166	0.1282
hogl	O	0.0141	0.0080	0.0123	0.0929	0.0441
hyro	P	0.0186	0.0023	0.0100	-0.0890	-0.0461
lefe	Q	0.0841	0.0572	0.0603	-0.0828	-0.7051
mele	R	0.0013	-0.0075	-0.0125	-0.0048	0.0036
memu	S	0.0182	0.0149	0.0213	-0.0497	-0.1224
psta	T	0	0	0	0	0
soel	U	-0.0011	-0.0030	0.0101	0.0066	-0.0054
spin	V	-0.0013	-0.0029	0.0043	-0.0003	0.0002
atca	W	-0.0024	0.0028	0.0009	-0.0003	0.0003
epto	X	0.0020	0.0016	0.0007	-0.0001	0.0002
prgl	Y	-0.6698	0.6913	0.2391	-0.0074	0.0767
yuel	Z	0.0143	0.0044	0.0042	0.0418	0.0180
xasa	a	-0.0686	-0.3815	0.6564	-0.2548	0.2800
sema	b	-0.0022	0.0034	-0.0001	-0.0002	0.0002

	PLOT	AXIS 6	AXIS 7	AXIS 8	AXIS 9	AXIS 10
ARSP	A	-0.0171	-0.0627	0.0300	0.0037	-0.0045
boer	B	-0.0799	-0.0280	0.0124	0.0071	-0.0542
erpu	C	0.0983	0.8030	-0.1049	-0.0371	0.0874
mupo	D	0.0014	-0.0172	0.0023	0.0004	-0.0011
pasp	E	0	0	0	0	0
spco	F	0	0	0	0	0
spfl	G	-0.6199	-0.2061	-0.1797	0.1199	-0.0867
assp	H	3.6E-0005	-0.0006	0.0003	-4.9E-0005	-0.0003
caja	I	5.3E-0005	-0.0008	0.0005	-7.3E-0005	-0.0005
caba	J	0.0468	-0.0102	0.9412	-0.0095	-0.0106
chso	K	0.1078	0.0363	0.0089	0.9892	0.0067
crpo	L	0.3398	-0.2132	-0.2418	-0.0734	-0.1022
dasp	M	-0.0003	0.0003	0	0	-4.1E-0006
eual	N	-0.1597	-0.1050	0.0005	-0.0001	0.9645
hogl	O	-0.0640	-0.0412	0.0005	-0.0002	-0.0012
hyro	P	0.0529	0.0514	0.0004	-0.0001	0.0003
lefe	Q	0.6219	-0.1030	-0.1027	-0.0010	0.2013
mele	R	0.0020	-0.0054	3.9E-0005	4.7E-0005	-0.0002
memu	S	0.0701	-0.0022	-0.0153	-0.0002	0.0069
psta	T	0	0	0	0	0
soel	U	-0.0033	0.0081	-8.1E-0005	-3.3E-0005	0.0003
spin	V	7.4E-0005	-0.0003	-1.5E-0005	9.9E-0006	1.5E-0005
atca	W	0.0002	-0.0005	-1.3E-0005	8.3E-0006	-1.9E-0005

epto	X	0.0002	-0.0003	2.2E-0005	-1.5E-0005	-5.1E-0006
prgl	Y	0.0854	-0.0440	0.0193	-0.0110	0.0005
yuel	Z	0.0140	-0.0160	-9.6E-0005	4.7E-0005	-0.0027
xasa	a	0.1966	-0.4823	0.0051	-0.0054	-0.0205
sema	b	0.0002	-0.0004	1.6E-0005	-8.5E-0006	-1.9E-0005

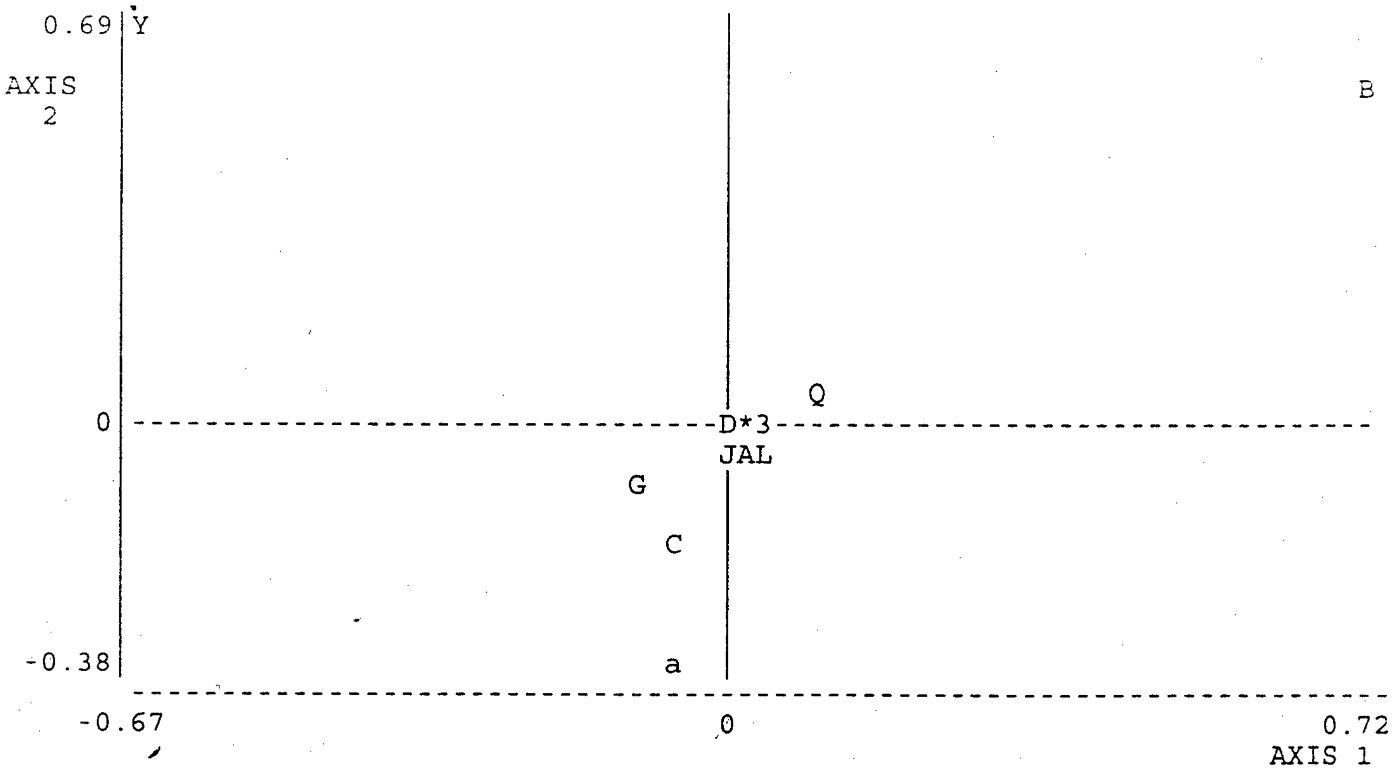
	PLOT	AXIS 11	AXIS 12	AXIS 13	AXIS 14	AXIS 15
ARSP	A	0.9890	0.0028	-0.0005	-0.0024	0.0028
boer	B	0.0118	-0.0311	0.0030	-0.0076	-0.0161
erpu	C	0.0820	0.0215	0.0206	-0.0355	0.0047
mupo	D	-0.0011	-2.6E-0005	0.9996	0.0009	-8.2E-0005
pasp	E	0	0	0	0	0
spco	F	0	0	0	0	0
spfl	G	0.0553	-0.0535	0.0019	0.0435	0.0037
assp	H	-2.0E-0005	-0.0002	-5.4E-0005	-6.9E-0005	-0.0001
caja	I	-3.0E-0005	-0.0002	-8.1E-0005	-0.0001	-0.0002
caba	J	0.0127	-0.0193	0.0005	0.0161	-0.0101
chso	K	-0.0018	0.0019	-5.6E-0005	-0.0004	-0.0038
crpo	L	0.0757	-0.0765	3.5E-0005	0.0785	-0.0472
dasp	M	1.9E-0005	-5.4E-0006	0	-2.1E-0005	1.6E-0005
eual	N	-8.6E-0005	-0.0315	-0.0002	0.0300	-0.0044
hogl	O	0.0013	0.9913	-0.0001	0.0177	-0.0047
hyro	P	3.4E-0005	-0.0020	-0.0002	0.9919	0.0044
lefe	Q	0.0466	0.0762	-0.0008	-0.0724	0.0047
mele	R	-0.0007	-9.4E-0007	-1.6E-0006	1.5E-0006	0.0001
memu	S	0.0010	5.7E-0005	-0.0002	0.0002	0.0029
psta	T	0	0	0	0	0
soel	U	0.0009	-5.2E-0006	3.3E-0005	-1.6E-0005	-1.5E-0005
spin	V	2.2E-0005	-2.9E-0006	1.5E-0005	-6.7E-0006	-1.7E-0006
atca	W	-3.0E-0005	-2.5E-0006	1.2E-0005	-5.6E-0006	-3.1E-0006
epto	X	-7.6E-0006	4.4E-0006	-2.2E-0005	9.9E-0006	-4.4E-0005
prgl	Y	0.0121	0.0018	-0.0176	0.0091	0.0025
yuel	Z	-4.5E-0005	0	8.1E-0005	-4.9E-0005	0.9986
xasa	a	-0.0613	0	-0.0004	0.0002	-0.0050
sema	b	-3.7E-0005	0	-1.3E-0005	7.6E-0006	0

	PLOT	AXIS 16	AXIS 17	AXIS 18	AXIS 19	AXIS 20
ARSP	A	-0.0008	-3.0E-0005	0.0037	-2.1E-0005	-2.0E-0005
boer	B	0.0079	-0.0099	-0.0130	0.0015	-0.0066
erpu	C	0.0097	0.0011	-0.0036	-0.0003	0.0007
mupo	D	-9.0E-0005	8.5E-0005	0.0002	3.2E-0005	5.7E-0005
pasp	E	0	0	0	0	0
spco	F	0	0	0	0	0
spfl	G	0.0070	0.0015	-0.0151	-0.0002	0.0010
assp	H	3.8E-0005	-6.8E-0005	-6.8E-0005	1.0E-0005	1.0000
caja	I	5.6E-0005	0.9999	-0.0001	1.5E-0005	0
caba	J	0.0025	0	0.0080	-0.0001	0
chso	K	-0.0004	0	0.0050	1.8E-0005	0
crpo	L	0.0007	0	0.0420	-7.8E-0005	0
dasp	M	-2.0E-0005	0	0	1.0000	0
eual	N	0.0002	0	0.0255	3.2E-0005	0
hogl	O	0.0004	0	0.0139	1.6E-0005	0
hyro	P	2.4E-0005	0	-0.0146	4.1E-0005	0
lefe	Q	0.0015	0	-0.1426	0.0002	0

mele	R	0.9999	0	0.0003	-8.7E-0007	0
memu	S	0.0001	0	0.9881	5.3E-0005	0
psta	T	0	0	0	0	0
soel	U	-1.6E-0005	0	0	-4.9E-0006	0
spin	V	-6.9E-0006	0	0	-2.7E-0006	0
atca	W	-5.8E-0006	0	0	-2.3E-0006	0
epto	X	1.0E-0005	0	0	4.1E-0006	0
prgl	Y	0.0083	0	0	0.0016	0
yuel	Z	-4.1E-0005	0	0	0	0
xasa	a	0.0002	0	0	0	0
sema	b	6.3E-0006	0	0	0	0

	PLOT	AXIS 21	AXIS 22	AXIS 23	AXIS 24	AXIS 25
ARSP	A	-7.8E-0006	0.0008	2.9E-0005	0	0
boer	B	0.0009	-0.0010	-0.0002	0	0
erpu	C	-0.0025	-0.0129	0.0004	0	0
mupo	D	3.8E-0005	0.0003	-8.7E-0005	0	0
pasp	E	0	0	0	0	1
spco	F	0	0	0	0	0
spfl	G	-0.0017	-0.0089	-9.2E-0005	0	0
assp	H	9.8E-0006	1.2E-0005	-1.6E-0006	0	0
caja	I	1.5E-0005	1.8E-0005	-2.4E-0006	0	0
caba	J	-0.0005	-0.0035	0.0002	0	0
chso	K	7.5E-0005	0.0005	-8.1E-0006	0	0
crpo	L	0.0002	-0.0013	0.0002	0	0
dasp	M	6.7E-0010	0	9.1E-0006	0	0
eual	N	3.1E-0005	4.9E-0005	-9.4E-0006	0	0
hogl	O	-9.0E-0007	-0.0003	8.9E-0006	0	0
hyro	P	-6.8E-0006	3.8E-0005	3.8E-0005	0	0
lefe	Q	3.8E-0005	-0.0009	1.8E-0007	0	0
mele	R	3.7E-0005	0.0002	3.6E-0005	0	0
memu	S	-2.1E-0005	-0.0002	-1.3E-0005	0	0
psta	T	0	0	0	1	0
soel	U	-4.8E-0005	0.9999	4.6E-0006	0	0
spin	V	1.0000	0	4.3E-0007	0	0
atca	W	5.0E-0007	0	1.0000	0	0
epto	X	-8.9E-0007	0	-4.7E-0006	0	0
prgl	Y	7.7E-0005	0	-0.0039	0	0
yuel	Z	1.6E-0005	0	1.9E-0005	0	0
xasa	a	-0.0043	0	-9.6E-0005	0	0
sema	b	0	0	-2.9E-0006	0	0

	PLOT	AXIS 26	AXIS 27	AXIS 28
ARSP	A	7.0E-0006	4.0E-0005	0
boer	B	-0.0026	-0.0003	0
erpu	C	0.0003	0.0009	0
mupo	D	2.2E-0005	-7.1E-0005	0
pasp	E	0	0	0
spco	F	0	0	1
spfl	G	0.0004	0.0003	0
assp	H	-1.8E-0005	-2.9E-0006	0
caja	I	-2.7E-0005	-4.4E-0006	0
caba	J	8.1E-0005	0.0002	0
chso	K	-6.3E-0006	-2.4E-0005	0
crpo	L	-2.5E-0005	0.0001	0
dasp	M	0	7.0E-0006	0
eual	N	-7.0E-0005	-1.1E-0005	0
hogl	O	-5.0E-0005	9.0E-0006	0
hyro	P	-5.5E-0005	3.0E-0005	0
lefe	Q	-0.0003	1.5E-0006	0
mele	R	5.0E-0006	1.6E-0005	0
memu	S	-6.8E-0005	-1.4E-0006	0
psta	T	0	0	0
soel	U	4.6E-0006	1.5E-0005	0
spin	V	4.8E-0006	7.3E-0006	0
atca	W	4.1E-0006	-1.2E-0005	0
epto	X	1.0000	-1.2E-0006	0
prgl	Y	0	-0.0038	0
yuel	Z	0	1.1E-0005	0
xasa	a	0	0.0009	0
sema	b	0	1.0000	0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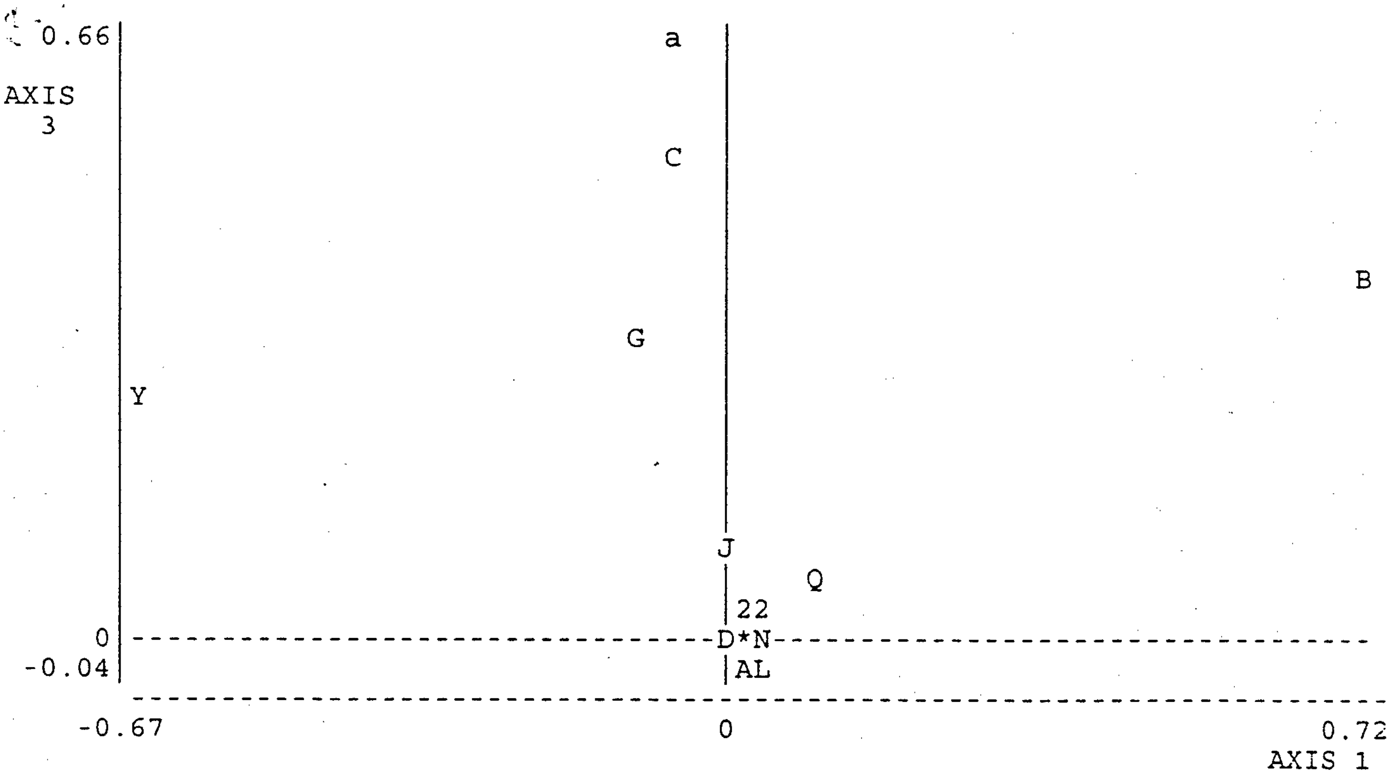
AXIS 1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AXIS
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G
Y
J
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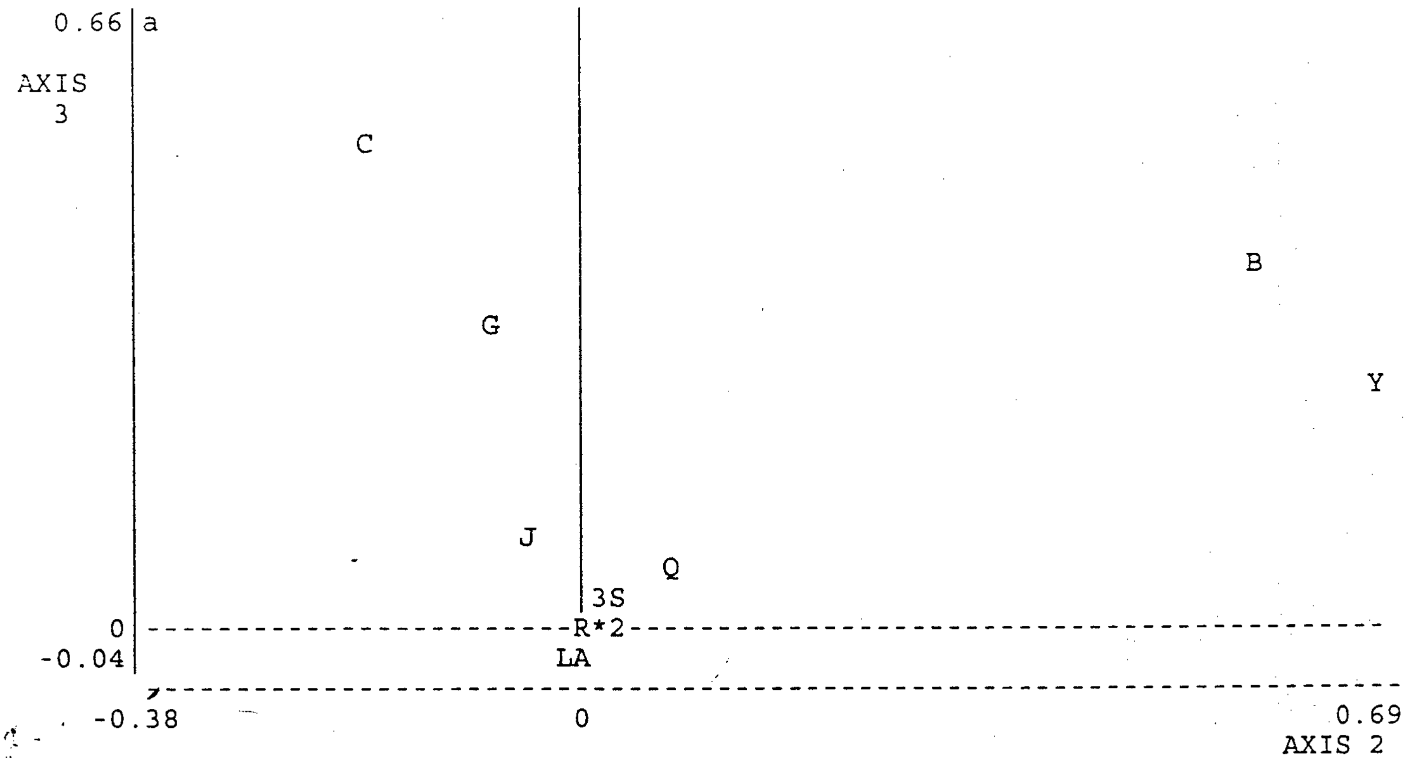
AXIS 1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a
AXIS
3
C
B
G
Y
J
Q
3S
0
R*2
-0.04
LA
-0.38
0
0.69
AXIS 2

PRINCIPAL COMPONENT SCORES

	PLOT	AXIS 1	AXIS 2	AXIS 3	AXIS 4	AXIS 5
1935	A	4.3405	1.1667	-1.3035	-0.4875	0.1410
1950	B	1.0503	1.6397	-1.8476	0.8664	1.5553
1955	C	-3.5668	-1.3165	-3.2169	1.1240	-0.5379
1980	D	-6.1276	-4.4234	5.5414	-1.0924	0.7288
1935g	E	17.0685	5.8821	3.0490	-1.2095	-1.7147
1950g	F	12.4111	4.7826	0.8323	1.4923	1.7191
1955g	G	1.1445	-2.7667	-3.6117	1.8183	-1.1895
1980g	H	-4.6507	-6.3050	5.3779	1.9907	-0.2598
1935d	I	-12.5729	8.2674	-0.9301	-1.1229	0.7252
1980d	J	-12.8171	7.4337	0.4671	-0.1118	-1.2218
1935id	K	3.2771	-6.6492	-2.4117	-2.1650	0.5760
1980id	L	0.4430	-7.7114	-1.9463	-1.1026	-0.5217

	PLOT	AXIS 6	AXIS 7	AXIS 8	AXIS 9	AXIS 10
1935	A	-1.0093	0.4245	0.1032	-0.0143	-0.3124
1950	B	1.0836	0.0418	-0.1836	0.5775	-0.2955
1955	C	0.0487	-0.1755	-0.4843	-0.1187	-0.0990
1980	D	0.3989	0.1681	-0.7502	-0.0285	0.1882
1935g	E	0.7041	-0.1558	0.0011	0.0503	-0.0857
1950g	F	-0.8816	0.0750	-0.0203	-0.1994	0.3717
1955g	G	0.6576	-0.0035	-0.0922	-0.1708	-0.0250
1980g	H	0.0120	-0.1432	0.6348	-0.0053	-0.1627
1935d	I	0.9440	0.3493	0.4795	-0.2530	0.2300
1980d	J	-1.2717	-0.5032	-0.1450	0.1852	-0.0877
1935id	K	-0.0600	-0.7466	0.2365	-0.0504	0.0876
1980id	L	-0.6263	0.6692	0.2204	0.0275	0.1905

	PLOT	AXIS 11	AXIS 12	AXIS 13	AXIS 14	AXIS 15
1935	A	-0.1004	-0.1999	0.0170	0.1211	-0.1597
1950	B	-0.1148	-0.2168	-0.1300	-0.0525	-0.2300
1955	C	-0.0492	-0.1178	-0.0306	0.0463	-0.1067
1980	D	-0.1423	0.0596	0.1354	-0.1641	-0.0218
1935g	E	0.0130	-0.0802	0.0348	0.0388	-0.0178
1950g	F	0.0110	0.2586	-0.0091	-0.1354	0.0963
1955g	G	0.0924	0.1816	0.0210	-0.0470	0.2340
1980g	H	0.1494	-0.0817	-0.0251	0.0819	0.0356
1935d	I	0.0098	0.1414	0.3037	-0.0498	0.0683
1980d	J	0.0720	-0.0546	-0.3138	0.1044	0.0486
1935id	K	0.4144	0.0426	-0.0092	0.2905	0.0773
1980id	L	-0.3551	0.0672	0.0059	-0.2342	-0.0243

	PLOT	AXIS 16	AXIS 17	AXIS 18	AXIS 19	AXIS 20
1935	A	-0.0571	-0.0407	0.1223	-0.0138	-0.0189
1950	B	-0.0611	-0.0499	0.0636	-0.0126	-0.0350
1955	C	-0.0845	0.0091	0.0431	-0.0205	0.0045
1980	D	-0.0086	0.0203	-0.0365	-0.0199	0.0120
1935g	E	0.0129	0.1594	0.0010	-0.0003	0.1041
1950g	F	-0.0118	-0.1593	-0.0632	-0.0046	-0.1082
1955g	G	0.1706	-0.0146	-0.0976	0.1571	-0.0114
1980g	H	-0.0090	0.0228	0.0512	-0.0247	0.0137

1935d	I	0.0128	0.0095	0.0084	0.0016	0.0048
1980d	J	0.0363	0.0155	-0.0471	-3.6E-0005	0.0088
1935id	K	0.0959	0.0144	-0.0323	-0.0297	0.0181
1980id	L	-0.0963	0.0137	-0.0129	-0.0326	0.0076

	PLOT	AXIS 21	AXIS 22	AXIS 23	AXIS 24	AXIS 25
1935	A	-0.0053	0.0039	-0.0065	-0.0075	-0.0075
1950	B	-0.0061	0.0157	-0.0158	-0.0075	-0.0075
1955	C	-0.0145	0.0005	-0.0167	-0.0075	-0.0075
1980	D	0.0854	-0.0799	0.0072	-0.0075	-0.0075
1935g	E	0.0063	-0.0064	0.0068	-0.0075	-0.0075
1950g	F	0.0067	0.0009	0.0009	-0.0075	-0.0075
1955g	G	0.0498	-0.0022	-0.0005	0.0829	0.0829
1980g	H	-0.0673	0.0740	-0.0127	-0.0075	-0.0075
1935d	I	-0.0088	0.0164	-0.0687	-0.0075	-0.0075
1980d	J	0.0131	-0.0181	0.0833	-0.0075	-0.0075
1935id	K	-0.0257	0.0159	0.0128	-0.0075	-0.0075
1980id	L	-0.0336	-0.0208	0.0099	-0.0075	-0.0075

	PLOT	AXIS 26	AXIS 27	AXIS 28
1935	A	0.0108	-0.0070	-0.0025
1950	B	-0.0138	-0.0165	-0.0025
1955	C	0.0017	-0.0161	0.0276
1980	D	0.0047	-0.0107	-0.0025
1935g	E	0.0351	0.0052	-0.0025
1950g	F	-0.0428	-0.0014	-0.0025
1955g	G	-0.0049	-0.0008	-0.0025
1980g	H	0.0055	-0.0004	-0.0025
1935d	I	0.0019	0.0221	-0.0025
1980d	J	0.0035	-0.0048	-0.0025
1935id	K	-0.0048	0.0159	-0.0025
1980id	L	0.0031	0.0144	-0.0025

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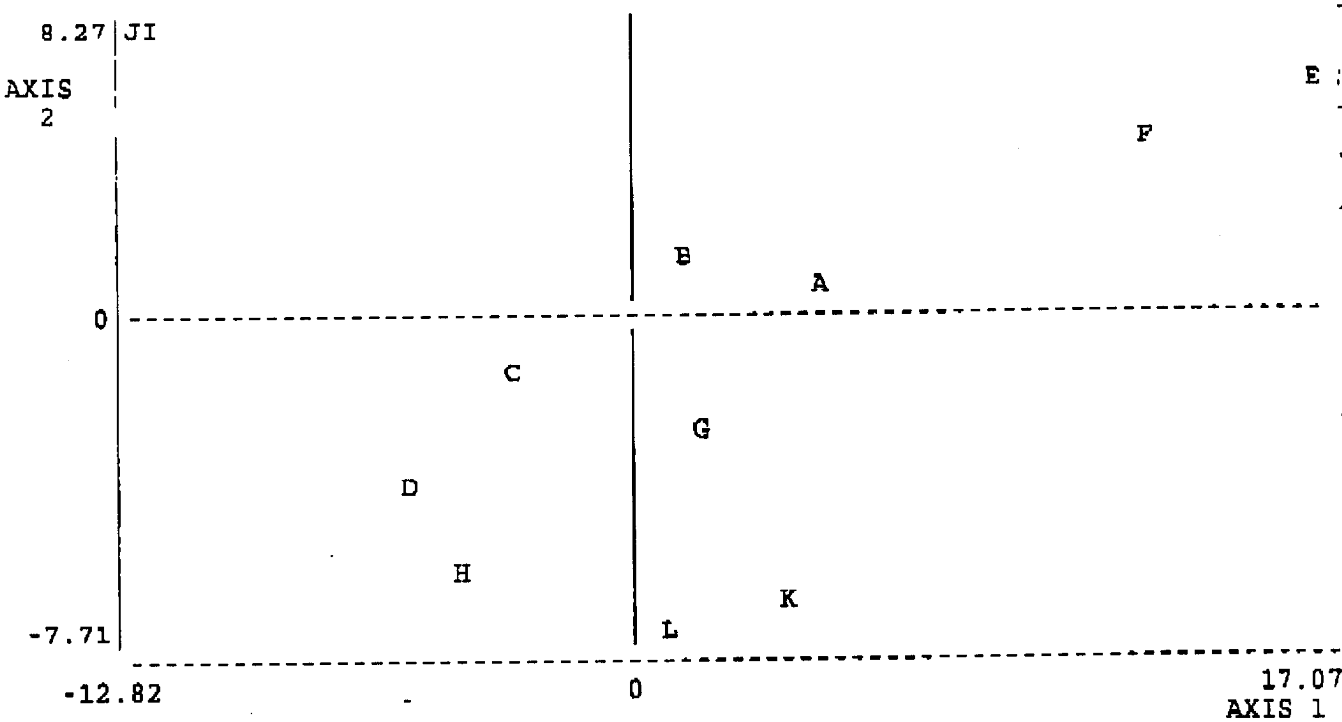
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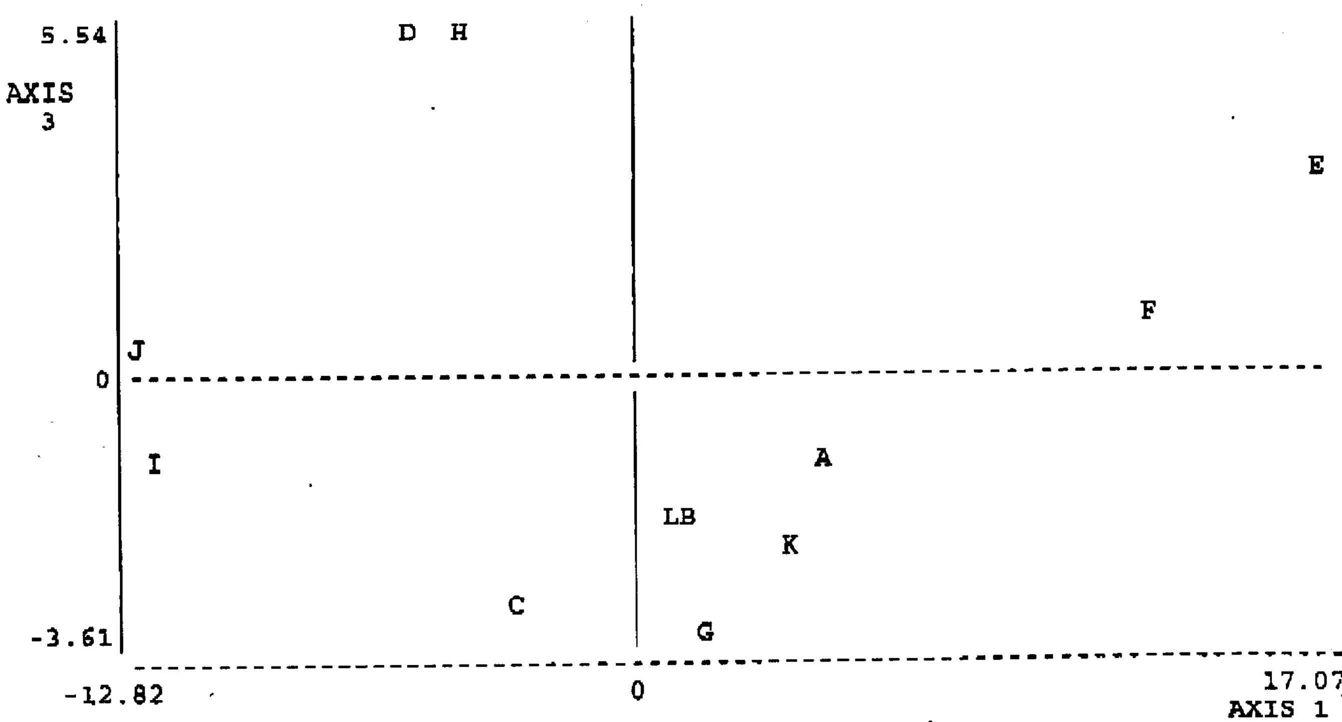
AXIS 1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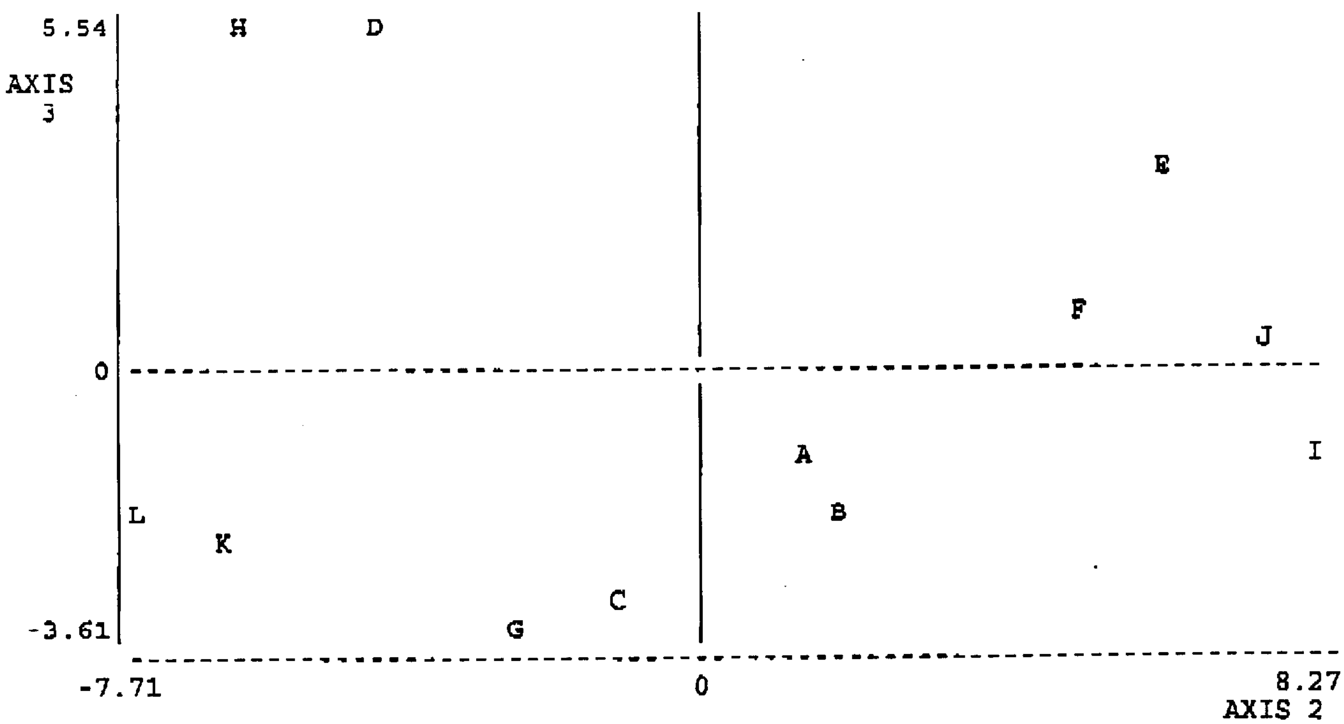
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AXIS 2

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*****  M V S P  *****
*********************
Ver. 2.1e

Date of analysis - December 21, 1994
Time of analysis -  5:12:06pm

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CORRESPONDENCE ANALYSIS
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USDA1

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Scores will be detrended

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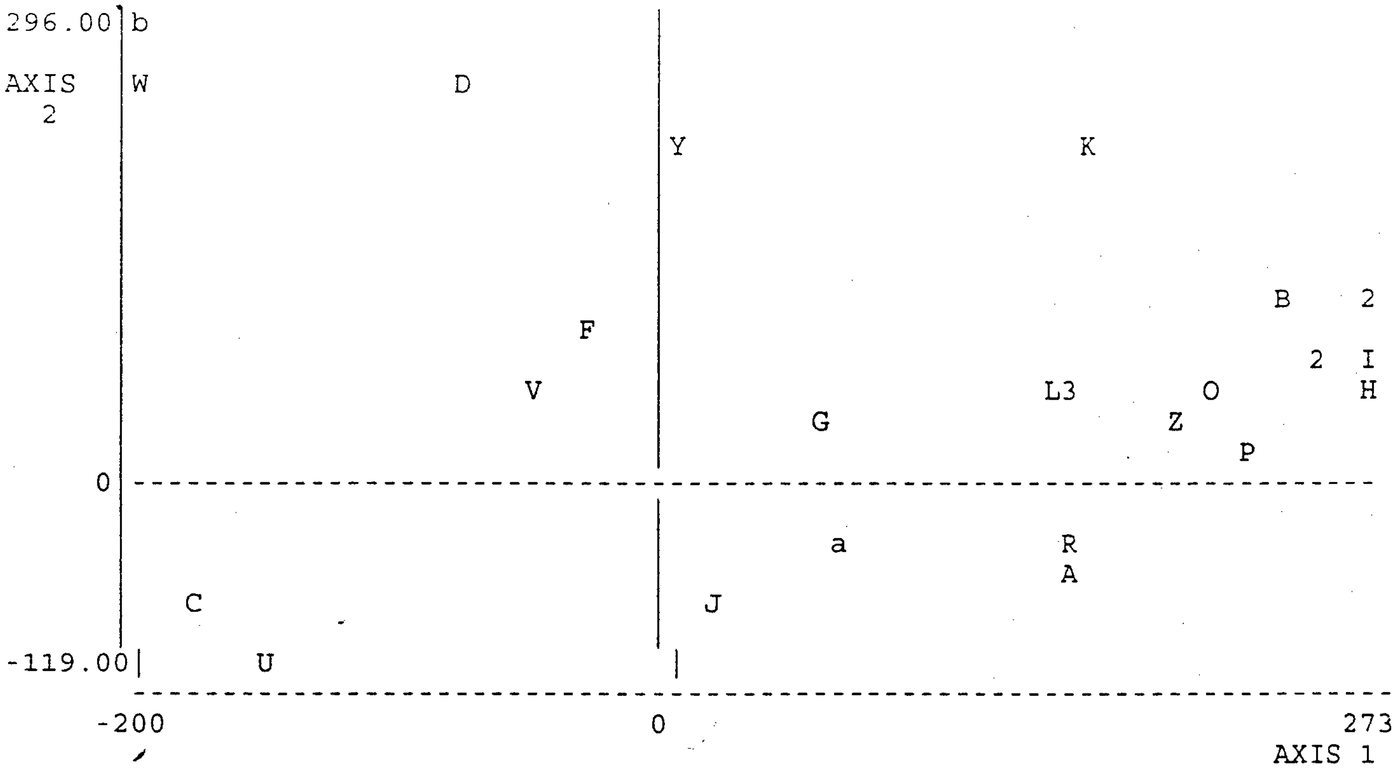
3	0.048	3.54	68.52
4	0.011	0.80	69.32

SPECIES SCORES

	PLOT	AXIS 1	AXIS 2	AXIS 3	AXIS 4
ARSP	A	150	-62	371	363
boer	B	235	100	36	-4
erpu	C	-183	-79	-68	-28
mupo	D	-77	230	135	167
pasp	E	153	59	-445	198
spco	F	-30	89	53	65
spfl	G	54	40	4	84
assp	H	266	60	153	177
caja	I	273	67	144	168
caba	J	14	-73	-168	19
chso	K	155	202	-96	-476
crpo	L	146	54	-111	-36
dasp	M	153	59	-445	198
eual	N	249	72	136	160
hogl	O	203	47	-74	159
hyro	P	217	14	225	236
lefe	Q	244	77	-59	162
mele	R	150	-39	200	283
memu	S	271	103	-6	-9
psta	T	153	59	-445	198

soel	U	-157	-119	-61	168
spin	V	-49	44	-5	177
atca	W	-199	236	162	175
epto	X	265	108	-19	-18
prgl	Y	5	194	102	38
yuel	Z	192	35	33	193
xasa	a	65	-38	142	165
sema	b	-200	296	165	177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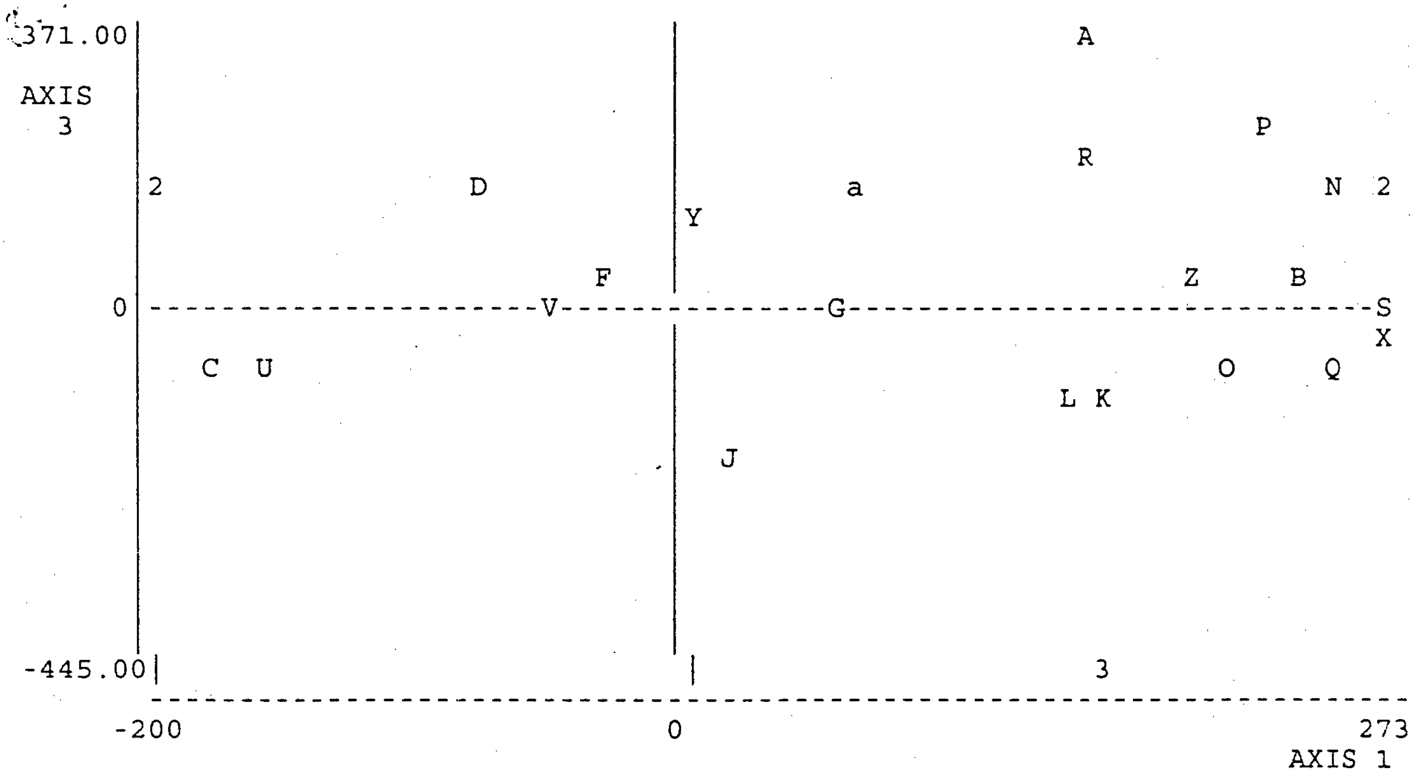
U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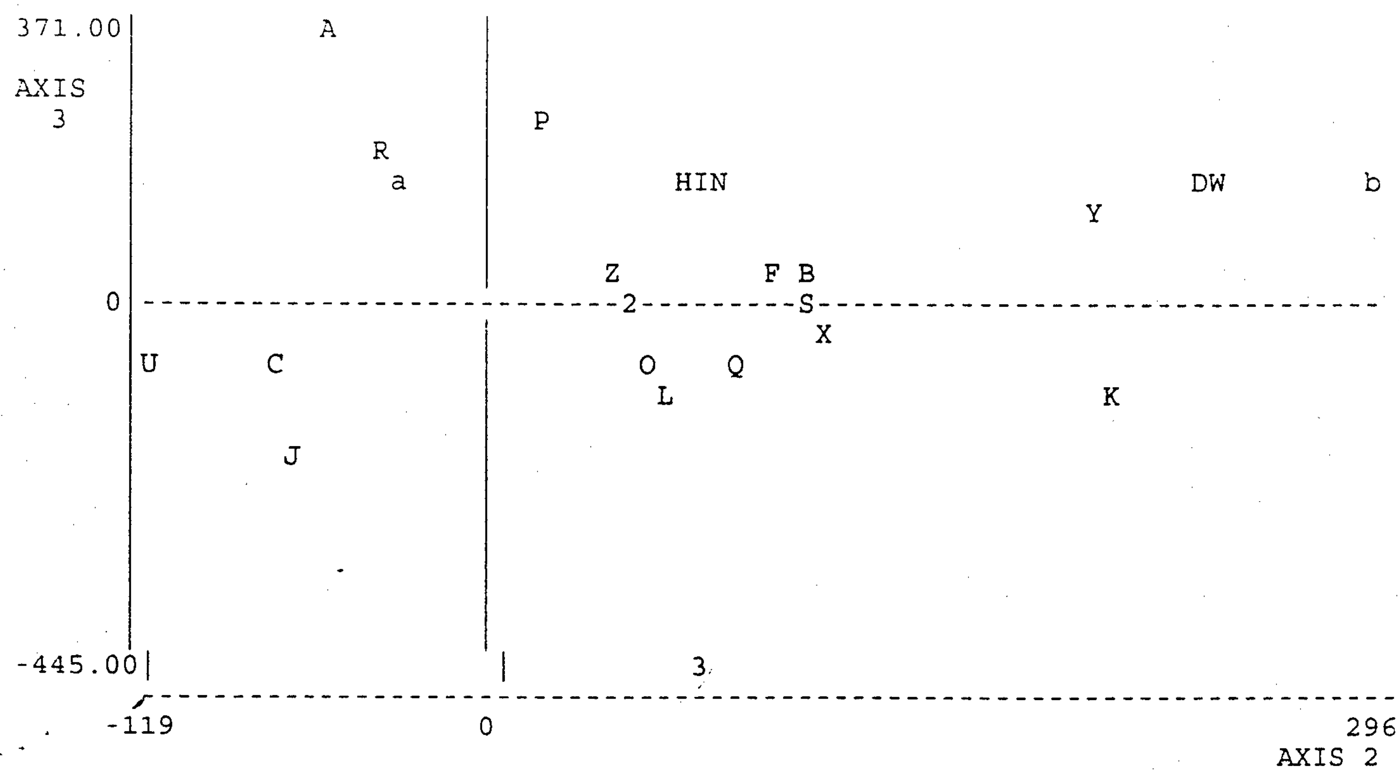
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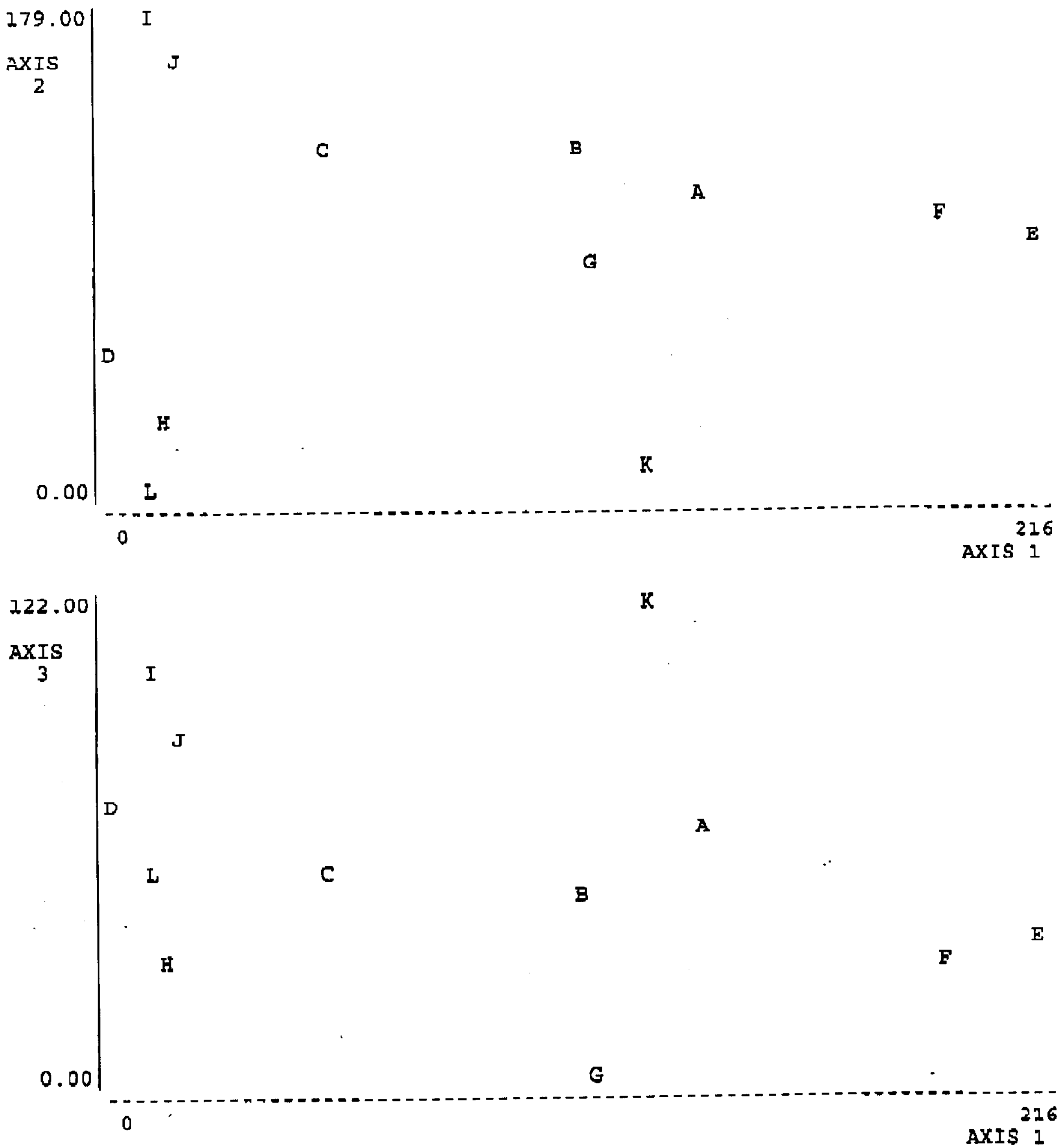
C
O
Q
L
K
J
-445.00
3
-119
0
296
AXIS 2

SAMPLE SCORES

	PLOT	AXIS 1	AXIS 2	AXIS 3	AXIS 4
1935	A	135	108	59	35
1950	B	109	124	42	0
1955	C	48	120	49	48
1980	D	0	47	64	73
1935g	E	216	86	33	41
1950g	F	191	94	30	21
1955g	G	111	81	0	57
1980g	H	12	26	27	64
1935d	I	8	179	99	49
1980d	J	14	156	84	52
1935id	K	123	9	122	138
1980id	L	10	0	49	89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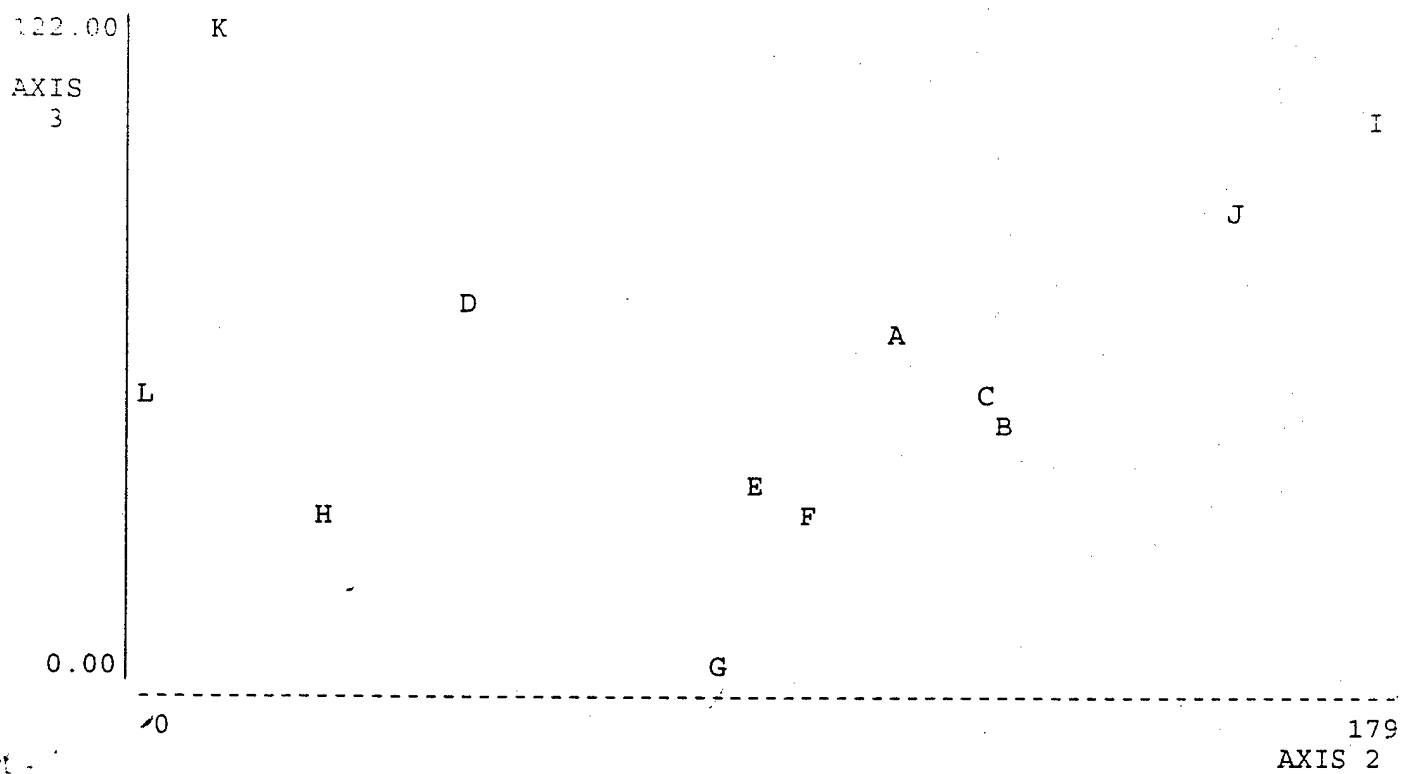
AXIS 3
K
I
J
D
A
L
C
B
E
H
F
0.00
G
0
216
AXIS 1


122.00
AXIS
3
0.00
0
179
AXIS 2
K
I
J
D
A
L
C
B
E
H
F
G

APPENDIX C

SPECIES DIVERSITY AND ASSOCIATIONS FREQUENCY/ANALYSIS DATA

```
*********************
*****  M V S P  *****
*********************
Ver. 2.1e

Date of analysis - January 31, 1995
Time of analysis -  2:28:35pm

Input file name  - A:\JORNADAS.MVS
Output directed to printer
```

DIVERSITY INDICES
=================

Jornada

File of 61 rows x 69 columns

RAW DATA

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lt	0	0	0	0	0	0
pg	0	0	0	0	0	0
ye	0	0	0	0	0	0
xm	0	0	0	0	0	0
xs	0	0	0	0	0	0
za	0	0	0	0	0	0
zg	0	0	0	0	0	0
ba	0	0	0	0	0	0
cb	0	0	0	0	0	0
cp	0	0	0	0	0	0
hc	3	3	1	5	0	0
hg	1	3	2	1	0	0
hv	0	0	0	0	0	0
pn	0	0	0	0	0	0
sl	4	4	4	1	4	3
se	0	0	0	0	0	0
ss	0	0	0	0	0	0
ta	0	0	0	0	0	0
an	0	0	0	0	0	2
at	0	0	0	0	0	0
bp	0	0	0	0	0	0
bm	0	0	0	0	0	0
ci	2	1	0	0	0	0
ea	0	0	0	0	0	0
et	0	0	0	0	0	0
hg	0	0	0	0	0	0
ho	0	2	3	4	4	2
ve	0	0	0	0	0	0
xs	0	0	0	0	0	0
al	0	0	0	0	0	0
at	0	0	0	0	0	0
aw	0	0	0	0	0	0
be	0	0	0	0	0	0

ce	1	1	3	2	1	1
el	0	0	0	0	0	0
ep	0	0	0	0	0	0
mp	0	0	0	0	0	0
po	4	4	4	5	5	6
sc	0	0	0	0	0	0
scr	0	0	0	0	0	0
ai	0	0	0	0	0	0
ac	0	0	0	0	0	0
ea	0	0	0	0	0	0
aa	0	0	0	0	0	1
ba	0	0	0	0	0	0
bb	0	0	0	0	0	0
th	0	0	0	0	0	0
ap	0	0	1	0	1	1
bi	0	0	0	0	0	0
bs	0	0	0	0	0	0
em	0	0	0	0	0	0
es	0	0	0	0	0	0
kp	0	0	0	0	0	0
pa	0	0	0	0	0	0
po	0	1	1	1	2	5
sk	0	0	0	0	0	0
tl	0	0	0	0	0	0
tt	0	0	0	0	0	2
op	0	0	0	0	0	0
ov	0	0	0	0	0	0

	7	8	9	10	11	12
et	0	0	0	4	3	1
lt	0	0	0	0	0	0
pg	0	6	4	4	3	0
ye	0	0	0	0	1	2
xm	0	0	0	0	0	0
xs	0	3	3	2	2	3
za	0	0	0	0	0	0
zg	0	0	1	0	0	1
ba	0	0	1	0	2	1
cb	0	0	0	0	0	0
cp	0	0	1	1	2	1
hc	0	0	0	0	0	0
hg	2	1	0	0	1	0
hv	0	0	0	0	1	0
pn	0	0	0	1	1	1
sl	1	0	0	0	0	0
se	0	1	1	1	0	0
ss	0	0	1	1	1	0
ta	0	0	0	0	0	0
an	0	0	0	0	0	1
at	0	0	0	0	0	1
bp	0	0	0	0	0	0
bm	0	0	0	0	1	1
ci	0	0	1	0	1	3
ea	0	0	0	1	0	0
et	0	0	0	0	0	0
hg	0	0	0	0	0	0
ho	0	0	0	0	0	0
ve	0	1	0	0	0	0
xs	0	0	0	0	0	1

al	0	0	0	0	1	1
at	0	0	0	0	0	0
aw	0	0	0	0	0	0
be	0	0	1	0	0	0
ce	0	0	0	0	0	0
el	0	0	0	0	0	0
ep	0	0	1	0	0	2
mp	0	4	3	3	2	2
po	5	5	0	0	0	0
sc	0	0	0	0	0	0
scr	0	0	1	1	1	1
ai	0	0	0	0	2	1
ac	0	0	0	0	1	1
ea	0	1	0	0	1	0
aa	0	0	0	0	0	1
ba	0	0	0	0	1	1
bb	0	1	1	0	1	0
th	0	1	1	0	0	0
ap	3	0	0	0	0	0
bi	0	1	0	0	0	0
bs	0	0	0	0	1	3
em	0	0	0	0	0	0
es	0	0	1	0	1	2
kp	0	0	0	0	1	0
pa	0	0	0	0	0	0
po	1	0	0	0	0	0
sk	0	4	3	3	0	1
tl	0	0	0	0	1	2
tt	0	0	0	0	0	0
op	0	0	0	0	0	0
ov	0	0	0	0	0	0
	13	14	15	16	17	18

et	1	0	0	0	0	0
lt	0	0	0	0	0	0
pg	0	0	0	0	0	0
ye	3	1	0	0	0	0
xm	0	0	0	0	0	0
xs	2	3	3	2	2	2
za	0	0	0	0	0	0
zg	0	0	0	1	1	1
ba	1	1	1	1	1	2
cb	1	1	1	2	1	1
cp	1	1	1	1	1	1
hc	0	0	0	0	0	0
hg	0	0	0	0	0	0
hv	0	0	0	0	1	0
pn	1	1	1	1	1	1
sl	0	0	0	0	0	0
se	0	0	0	0	1	0
cc	1	0	1	1	1	1
ta	0	0	0	0	0	0
an	1	1	1	1	0	1
at	1	0	1	0	0	0
bp	0	1	1	1	0	0
bm	1	1	1	1	1	1
ci	1	2	1	3	1	3
ea	0	0	0	0	0	0
et	1	0	0	1	2	2

hg	0	0	0	0	0	0
ho	0	0	0	0	0	0
ve	0	0	0	0	0	0
xs	0	0	0	1	0	0
al	1	2	1	1	1	0
at	0	0	0	0	0	0
aw	0	0	0	0	0	0
be	1	0	1	0	0	0
ce	0	0	0	0	0	0
el	0	0	0	0	0	0
ep	1	1	1	1	3	1
mp	2	1	2	1	1	1
po	0	0	0	0	0	0
sc	0	0	0	0	0	0
scr	0	0	1	1	1	1
ai	3	0	0	0	0	1
ac	1	1	1	1	1	1
ea	0	0	0	1	2	1
aa	1	1	1	1	1	1
ba	1	0	1	1	1	0
bb	0	0	1	1	1	1
th	0	0	0	0	0	0
ap	0	0	0	0	0	0
bi	2	0	0	0	0	0
bs	2	0	0	2	0	1
em	0	0	0	0	0	1
es	1	1	1	1	1	2
kp	0	0	1	1	0	0
pa	0	0	0	0	0	0
po	0	0	0	0	0	0
sk	2	0	0	0	0	2
tl	0	1	2	3	2	2
tt	0	0	0	0	0	1
op	0	0	0	0	0	0
ov	0	0	0	0	0	0
	19	20	21	22	23	24
et	1	2	1	0	0	2
lt	0	0	0	0	0	0
pg	0	0	0	0	0	0
ye	0	0	0	0	0	0
xm	0	0	0	0	0	0
xs	3	2	2	2	3	3
za	0	0	0	0	0	0
zg	0	1	0	1	1	0
ba	1	1	1	1	1	1
cb	1	1	0	1	0	0
cp	1	2	2	3	2	2
hc	0	0	0	0	0	0
hg	0	0	0	0	0	0
hv	1	1	1	1	0	1
pn	1	0	1	1	1	1
sl	0	0	0	0	0	0
se	0	1	1	0	1	1
ss	2	2	1	1	2	3
ta	0	0	0	0	0	0
an	1	1	1	1	0	1
at	0	0	1	1	0	0
bp	1	0	0	1	1	0

bm	1	1	1	0	1	0
ci	2	2	3	3	3	1
ea	1	1	1	1	1	0
et	2	2	0	0	0	0
hg	0	0	0	0	0	0
ho	0	0	0	0	0	0
ve	0	0	0	0	0	0
xs	2	1	0	2	0	0
al	0	1	0	1	1	1
at	0	0	0	0	0	0
aw	0	0	0	0	0	0
be	0	0	0	0	0	0
ce	0	0	0	0	0	0
el	0	0	0	0	0	0
ep	2	2	3	3	2	2
mp	0	0	0	0	0	1
po	0	0	0	0	0	0
sc	1	0	0	1	1	0
scr	1	1	1	1	1	0
ai	0	1	0	0	1	0
ac	1	1	1	0	1	1
ea	0	0	0	1	0	1
aa	1	1	1	1	1	1
ba	0	1	0	0	1	0
bb	1	1	1	1	2	1
th	0	0	0	0	0	0
ap	0	0	0	0	0	0
bi	0	0	0	2	0	0
bs	0	0	0	0	0	1
em	0	0	0	0	0	0
es	1	1	1	1	1	2
kp	0	1	0	1	1	1
pa	0	0	0	0	0	0
po	0	0	0	0	0	0
sk	0	0	1	1	1	1
tl	2	1	1	0	2	1
tt	0	1	0	0	2	1
op	0	0	0	0	0	0
ov	0	0	0	0	0	0
	25	26	27	28	29	30

et	0	0	1	0	2	0
lt	0	0	0	0	0	0
pg	0	0	0	0	0	0
ye	0	0	0	2	0	0
xm	0	0	0	0	0	0
xs	1	2	1	1	2	2
za	0	0	0	0	0	0
zg	0	1	1	1	1	1
ba	1	0	1	1	1	1
cb	0	0	1	0	0	0
cp	3	3	2	1	2	2
hc	0	0	0	0	0	0
hg	0	0	0	0	0	1
hv	1	1	1	0	0	0
pn	1	1	1	1	1	1
sl	0	0	0	0	0	0
se	0	0	1	1	1	1
ss	2	1	1	2	1	1

ta	0	0	0	0	1	0
an	0	0	1	0	0	1
at	0	0	0	0	0	0
bp	0	0	0	0	0	0
bm	0	1	0	0	0	0
ci	4	3	2	1	0	2
ea	1	1	1	0	0	0
et	0	0	0	0	0	0
hg	0	0	0	0	0	0
ho	0	0	0	0	0	0
ve	0	0	0	0	0	0
xs	0	0	0	0	0	0
al	1	1	2	2	1	1
at	0	0	0	0	0	0
aw	0	0	0	0	0	0
be	0	0	1	1	0	0
ce	0	0	0	0	0	0
el	0	0	0	0	0	0
ep	2	2	2	2	2	1
mp	0	0	1	2	2	1
po	0	0	0	0	0	0
sc	0	0	0	0	1	1
scr	1	1	2	3	2	1
ai	1	0	1	1	1	0
ac	1	1	1	1	1	1
ea	0	0	1	0	0	1
aa	2	1	1	1	2	0
ba	0	0	1	1	0	1
bb	1	1	1	1	1	2
th	0	0	0	0	1	0
ap	0	1	0	1	1	0
bi	2	0	1	1	1	1
bs	0	0	0	0	0	0
em	0	0	0	0	0	0
es	1	1	2	1	1	2
kp	1	0	1	2	0	1
pa	0	0	0	0	1	1
po	0	0	0	0	0	0
sk	0	2	1	2	2	2
tl	1	1	1	1	1	1
tt	0	2	2	2	3	3
op	0	0	0	0	0	0
ov	0	1	0	0	0	0
	31	32	33	34	35	36
et	0	0	0	0	1	0
lt	0	0	0	0	0	0
pg	0	0	0	0	0	0
ye	0	0	0	0	0	0
xm	0	1	0	0	0	0
xs	1	2	1	2	0	1
za	0	0	0	0	0	0
zg	1	1	1	1	1	1
ba	1	1	1	2	1	1
cb	0	0	0	0	0	0
cp	2	2	1	1	1	1
hc	0	0	0	0	0	0
hg	0	1	0	0	0	0
hv	0	0	0	0	0	0

pn	1	1	0	1	1	1
sl	0	0	0	0	0	0
se	0	1	1	1	1	1
ss	2	1	2	1	1	1
ta	0	0	0	0	0	1
an	1	0	0	0	0	0
at	0	0	0	0	0	0
bp	0	0	0	0	0	0
bm	1	1	0	1	1	1
ci	2	1	2	2	1	2
ea	1	0	1	1	1	0
et	0	0	0	0	0	0
hg	0	0	0	0	0	0
ho	0	0	0	0	0	0
ve	0	0	0	0	0	0
xs	0	1	0	0	0	0
al	1	2	1	2	1	0
at	0	0	0	0	0	0
aw	0	0	0	0	0	0
be	0	1	2	0	1	1
ce	0	0	0	0	0	0
el	0	0	0	0	0	0
ep	2	2	2	1	2	1
mp	0	0	0	1	1	0
po	0	0	0	0	0	0
sc	1	0	1	0	0	0
scr	2	3	1	2	2	1
ai	1	0	1	1	0	1
ac	1	1	1	0	1	1
ea	1	1	1	0	1	0
aa	1	0	2	2	1	2
ba	1	1	1	1	0	0
bb	0	1	1	1	1	1
th	1	1	1	1	0	1
ap	0	1	0	0	0	0
bi	1	0	1	0	1	1
bs	1	1	0	1	0	2
em	0	0	0	0	0	0
es	1	1	1	1	1	1
kp	1	2	0	1	2	1
pa	1	1	1	1	1	1
po	0	0	0	0	0	0
sk	1	2	2	2	1	2
tl	1	3	1	3	1	1
tt	3	2	3	4	4	4
op	1	0	0	0	0	0
ov	1	0	0	0	0	0
	37	38	39	40	41	42

et	0	0	0	0	1	1
lt	0	0	0	0	0	0
pg	0	0	0	0	0	0
ye	0	0	0	0	0	0
xm	0	1	1	2	1	1
xs	0	1	1	2	2	2
za	0	0	0	0	0	0
zg	1	1	0	0	1	1
ba	1	1	1	1	1	2
cb	0	0	1	0	1	1

cp	1	1	1	1	0	0
hc	0	0	0	0	0	0
hg	0	0	0	0	0	0
hv	0	0	0	0	0	0
pn	1	1	1	2	2	2
sl	0	0	0	0	0	0
se	0	1	1	1	0	0
ss	1	2	1	1	1	0
ta	0	0	0	0	1	0
an	0	0	0	1	0	1
at	0	0	0	0	0	0
bp	0	0	0	0	0	0
bm	1	1	0	0	1	1
ci	1	2	1	1	1	2
ea	0	1	0	0	0	1
et	0	0	0	0	2	0
hg	0	0	1	0	0	0
ho	0	0	0	0	0	0
ve	0	0	0	0	0	0
xs	0	0	0	0	0	1
al	1	0	0	0	0	0
at	0	0	0	0	0	0
aw	0	0	0	0	0	0
be	1	1	1	0	0	0
ce	0	0	0	0	0	0
el	0	0	0	0	0	0
ep	1	2	1	1	1	1
mp	0	0	0	0	0	0
po	0	0	0	0	0	0
sc	0	0	0	1	0	0
scr	1	1	1	1	1	0
ai	1	1	0	1	0	0
ac	1	1	1	1	0	1
ea	0	0	0	1	1	1
aa	1	1	1	1	2	1
ba	1	1	1	1	1	0
bb	1	1	1	1	0	1
th	1	0	0	0	0	1
ap	0	0	0	0	0	0
bi	1	0	0	0	0	0
bs	0	0	0	0	0	1
em	0	0	0	0	0	0
es	1	1	1	1	1	1
kp	0	0	0	0	2	0
pa	1	1	0	0	0	1
po	0	0	0	0	0	0
sk	1	2	2	2	2	2
tl	2	3	2	3	2	2
tt	4	4	4	4	3	4
op	0	0	0	0	0	0
ov	0	0	0	0	0	0

	43	44	45	46	47	48
et	1	0	2	3	2	0
lt	0	0	0	0	0	0
pg	0	0	0	0	0	0
ye	0	0	0	3	2	0
xm	1	0	0	1	0	0
xs	2	2	3	3	2	2

za	0	0	0	0	0	0
zg	0	1	1	0	0	1
ba	1	2	1	1	0	0
cb	0	1	1	1	1	1
cp	0	0	0	0	2	2
hc	0	0	0	0	0	0
hg	0	0	0	0	0	0
hv	0	0	0	0	0	0
pn	1	1	1	1	0	1
sl	0	0	0	0	0	0
se	0	0	0	1	0	1
ss	1	1	0	0	0	0
ta	0	0	0	0	0	0
an	0	0	0	0	0	0
at	0	0	0	0	0	0
bp	0	0	0	0	0	0
bm	1	0	1	1	1	1
ci	2	3	1	2	2	2
ea	1	1	2	2	1	1
et	0	0	0	0	0	0
hg	0	0	0	0	0	0
ho	0	0	0	0	0	0
ve	0	2	2	2	0	0
xs	0	0	0	0	0	0
al	0	0	0	0	0	0
at	0	0	0	0	0	0
aw	0	0	0	0	0	0
be	0	0	1	1	1	0
ce	0	0	0	0	0	0
el	0	0	0	0	0	0
ep	1	1	1	1	1	1
mp	0	1	0	0	0	0
po	0	0	0	0	0	0
sc	1	1	2	1	1	0
scr	1	1	1	1	1	1
ai	0	1	0	1	0	0
ac	1	1	1	0	0	1
ea	0	1	1	0	0	0
aa	0	1	1	1	0	1
ba	1	1	2	1	2	3
bb	1	2	1	2	1	1
th	0	1	1	0	0	0
ap	1	1	1	2	1	0
bi	0	1	0	1	0	0
bs	1	1	0	1	1	2
em	0	1	0	0	1	0
es	1	2	2	0	2	2
kp	0	0	1	1	0	1
pa	1	1	1	2	3	3
po	0	0	0	0	0	0
sk	0	1	1	1	0	0
tl	3	3	2	3	4	5
tt	4	4	2	3	1	2
op	0	0	0	0	0	0
ov	0	0	0	0	0	0
	49	50	51	52	53	54
et	0	2	1	2	2	1
lt	0	2	0	0	0	1

pg	0	0	0	0	0	0
ye	0	2	2	0	0	0
xm	2	1	1	1	0	1
xs	2	2	1	1	2	1
za	0	0	0	0	0	0
zg	1	0	1	0	0	1
ba	0	1	1	1	1	2
cb	1	1	1	1	1	1
cp	0	1	1	1	0	0
hc	0	0	0	0	0	0
hg	0	0	0	0	0	0
hv	0	1	0	0	0	0
pn	1	0	0	0	0	0
sl	0	0	0	0	0	0
se	1	0	1	1	1	1
ss	0	0	0	0	0	0
ta	0	0	0	0	0	0
an	0	0	1	0	0	0
at	0	0	0	0	0	0
bp	0	0	0	0	1	0
bm	2	1	0	1	1	1
ci	1	2	2	1	2	2
ea	2	2	1	1	1	1
et	0	0	0	0	0	1
hg	0	0	0	0	0	0
ho	0	0	0	0	0	0
ve	0	0	1	1	1	0
xs	0	0	0	0	0	0
al	0	1	0	0	0	0
at	0	0	0	0	0	0
aw	0	1	1	1	0	0
be	0	1	1	1	1	0
ce	0	0	0	0	0	0
el	0	0	0	0	0	0
ep	2	1	1	1	1	1
mp	0	0	0	0	1	0
po	0	0	0	0	0	0
sc	0	1	1	0	0	1
scr	0	1	1	1	0	1
ai	0	0	1	1	1	1
ac	0	1	1	1	1	1
ea	0	0	0	0	0	0
aa	1	1	0	1	0	1
ba	3	2	2	2	2	2
bb	1	1	1	1	1	1
th	0	0	0	0	0	0
ap	2	2	1	1	2	2
bi	0	0	1	0	2	1
bs	1	2	3	1	3	3
em	1	0	0	0	1	0
es	2	1	1	1	2	1
kp	0	0	2	1	0	1
pa	1	2	4	1	3	2
po	0	0	0	0	0	0
sk	2	2	0	2	1	3
tl	3	4	4	4	4	5
tt	0	2	1	1	1	2
op	0	0	0	0	0	0
ov	0	0	0	0	0	0

	55	56	57	58	59	60
et	1	0	1	0	2	3
lt	0	0	0	3	2	5
pg	0	0	0	0	0	0
ye	0	0	0	0	0	0
xm	1	2	2	1	1	1
xs	0	1	0	0	0	0
za	0	0	0	0	0	0
zg	1	0	0	0	0	0
ba	2	2	1	3	2	2
cb	0	0	0	0	0	0
cp	0	1	1	1	0	0
hc	0	0	0	0	0	0
hg	0	0	0	0	0	0
hv	0	0	0	0	0	0
pn	0	0	0	0	0	0
sl	0	0	0	0	0	0
se	0	0	0	0	0	1
ss	0	0	0	0	0	0
ta	0	0	0	0	0	0
an	0	0	0	0	0	0
at	0	0	0	0	0	0
bp	1	0	0	0	0	0
bm	1	0	0	0	0	0
ci	3	2	1	2	1	0
ea	1	1	1	0	1	1
et	0	0	0	0	0	0
hg	0	0	0	0	0	0
ho	0	0	0	0	0	0
ve	2	2	1	0	0	0
xs	0	0	0	0	0	0
al	0	0	0	0	0	0
at	0	0	0	0	0	0
aw	0	0	0	0	0	0
be	0	0	0	0	0	0
ce	0	0	0	0	0	0
el	0	0	0	0	0	0
ep	1	1	1	1	1	1
mp	0	1	0	0	2	2
po	0	0	0	0	0	0
sc	1	0	0	0	1	0
scr	1	0	1	0	0	0
ai	1	2	2	2	2	2
ac	1	1	1	0	0	0
ea	0	0	0	0	1	0
aa	1	1	1	0	0	0
ba	2	2	4	1	2	1
bb	3	1	2	1	2	1
th	1	0	0	0	0	0
ap	1	0	0	0	0	0
bi	3	2	0	0	1	1
bs	3	3	2	3	3	1
em	0	1	0	0	0	0
es	1	2	1	1	0	0
kp	2	2	2	0	0	0
pa	1	1	1	0	1	0
po	0	0	0	0	0	0
sk	2	0	0	0	0	1
tl	3	4	3	4	3	3

tt	1	0	1	0	0	0
op	0	0	0	0	1	0
ov	0	0	0	0	1	0
	61	62	63	64	65	66
et	1	0	1	0	0	0
lt	3	4	5	6	4	4
pg	1	2	0	0	0	0
ye	0	2	0	0	0	0
xm	1	0	0	1	1	3
xs	1	0	0	0	0	1
za	1	1	1	1	0	3
zg	0	0	0	0	2	0
ba	2	1	1	1	1	1
cb	0	0	0	0	0	0
cp	0	1	0	1	1	1
hc	0	0	0	0	0	0
hg	0	0	0	0	0	0
hv	0	0	0	0	0	0
pn	0	0	0	0	1	1
sl	0	0	0	0	0	0
se	0	0	0	0	0	0
ss	0	0	0	0	0	0
ta	0	0	0	0	0	0
an	0	0	0	0	0	0
at	0	0	0	0	0	0
bp	0	0	0	0	0	0
bm	0	0	0	1	0	1
ci	0	1	1	0	0	0
ea	0	0	0	0	0	0
et	0	0	0	0	0	0
hg	0	0	0	0	0	0
ho	0	0	0	0	0	0
ve	0	0	0	0	0	0
xs	0	0	0	0	0	0
al	0	0	0	0	0	1
at	0	0	0	0	0	0
aw	0	0	0	0	0	1
be	0	0	0	0	0	0
ce	0	0	0	0	0	0
el	0	0	0	0	0	0
ep	1	1	1	1	1	1
mp	1	1	1	1	1	3
po	0	0	0	0	0	0
sc	1	1	0	0	1	1
scr	0	0	1	0	0	0
ai	1	1	0	0	0	0
ac	0	0	0	0	0	0
ea	0	0	0	0	0	0
aa	0	0	0	0	0	0
ba	0	0	0	0	0	0
bb	1	0	0	0	0	0
th	0	0	0	0	0	0
ap	0	0	0	0	0	0
bi	2	0	0	0	0	0
bs	0	1	0	0	0	0
em	0	1	0	0	0	0
es	0	1	1	0	0	0
kp	0	0	0	0	0	0

pa	0	0	0	0	0	0
po	0	0	0	0	0	0
sk	0	0	0	0	0	0
tl	1	3	1	0	0	0
tt	0	0	0	0	0	0
op	0	0	0	0	0	0
ov	0	0	0	0	0	0
	67	68	69	70	71	72
et	0	0	0	0	0	1
lt	5	4	4	5	6	4
pg	0	1	0	0	0	2
ye	0	0	0	0	0	0
xm	2	2	1	2	2	1
xs	0	0	0	0	0	0
za	0	0	0	2	0	1
zg	0	0	1	0	0	1
ba	1	1	1	1	1	1
cb	0	0	0	0	0	0
cp	1	0	1	0	0	1
hc	0	0	0	0	0	0
hg	0	0	0	0	0	0
hv	0	0	0	0	0	0
pn	0	0	0	0	0	0
sl	0	0	0	0	0	0
se	0	0	0	0	1	1
ss	0	0	0	0	0	0
ta	0	0	0	0	0	0
an	0	0	0	0	0	0
at	0	0	0	0	0	0
bp	0	0	0	0	0	0
bm	1	0	0	0	0	0
ci	0	0	0	0	0	0
ea	0	0	0	0	1	1
et	0	0	0	0	0	0
hg	0	0	0	0	0	0
ho	0	0	0	0	0	0
ve	0	0	0	0	0	0
xs	0	0	0	0	0	0
al	0	1	1	1	1	0
at	0	0	0	0	0	0
aw	0	1	1	1	1	0
be	0	0	0	0	0	3
ce	0	0	0	0	0	0
el	0	0	0	0	0	0
ep	1	1	1	1	1	1
mp	2	1	1	1	3	3
po	0	0	0	0	0	0
sc	1	1	0	0	0	0
scr	0	0	0	0	0	1
ai	0	0	0	0	0	0
ac	0	0	0	0	0	1
ea	0	0	0	0	0	1
aa	0	0	0	0	0	0
ba	0	0	0	0	0	0
bb	0	0	0	0	0	0
th	0	0	0	0	0	0
ap	0	0	0	0	0	0
bi	0	0	0	0	0	1

bs	0	0	0	0	0	0
em	0	0	0	0	0	1
es	0	0	0	1	0	0
kp	0	0	0	0	0	0
pa	0	0	0	0	0	0
po	0	0	0	0	0	0
sk	0	0	0	0	0	0
tl	0	0	0	0	1	0
tt	0	0	0	0	0	0
op	0	0	0	0	0	0
ov	0	0	0	2	0	0

	73	74	75	76	77	78
et	2	0	0	1	1	1
lt	0	0	0	0	0	0
pg	3	0	0	3	0	1
ye	0	4	2	3	0	0
xm	0	3	3	1	2	2
xs	1	0	0	0	0	0
za	0	0	0	0	0	0
zg	1	1	1	1	0	1
ba	1	1	1	1	1	1
cb	1	0	0	0	0	0
cp	2	0	2	2	1	1
hc	0	0	0	0	0	0
hg	0	0	0	0	0	0
hv	0	0	0	0	1	0
pn	0	0	0	0	0	0
sl	0	0	0	0	0	0
se	0	0	1	1	0	1
ss	0	0	0	0	0	0
ta	0	0	0	0	0	0
an	0	0	0	0	0	0
at	0	0	0	0	0	0
bp	0	0	0	0	0	0
bm	0	0	0	0	0	0
ci	0	0	0	0	0	0
ea	2	1	1	1	1	1
et	0	0	0	0	0	0
hg	0	0	1	1	1	2
ho	0	0	0	0	0	0
ve	0	0	0	0	0	0
xs	0	0	0	0	0	0
al	1	1	1	1	0	0
at	1	1	2	2	1	2
aw	1	0	0	0	0	0
be	3	2	2	3	4	4
ce	0	0	0	0	0	0
el	0	0	1	2	1	1
ep	2	2	1	2	2	2
mp	3	0	1	3	0	0
po	0	0	0	0	0	0
sc	1	0	0	0	0	0
scr	2	1	2	1	2	3
ai	1	2	1	0	1	0
ac	1	0	0	0	0	0
ea	1	1	0	1	0	0
aa	1	1	2	2	1	1
ba	0	1	1	3	2	2

bb	1	1	1	0	1	2
th	0	0	0	0	0	0
ap	0	1	0	0	0	1
bi	3	2	3	1	2	2
bs	0	2	1	0	0	0
em	0	1	1	0	1	0
es	1	0	0	0	1	0
kp	0	0	0	0	0	0
pa	0	0	0	0	1	0
po	0	0	0	0	0	0
sk	0	0	0	0	0	0
tl	1	1	1	0	0	0
tt	0	0	0	0	0	0
op	0	0	0	0	0	0
ov	0	0	0	0	0	0

	79	80	81	82	83	84
et	1	0	2	2	2	0
lt	0	0	0	0	0	2
pg	1	0	0	0	0	0
ye	0	0	0	0	0	0
xm	4	2	1	0	0	0
xs	0	0	0	0	0	0
za	0	0	0	0	0	0
zg	1	0	1	0	0	0
ba	2	1	1	1	1	0
cb	0	0	0	0	0	0
cp	2	0	2	1	0	0
hc	0	0	0	0	0	0
hg	1	0	0	0	0	0
hv	0	0	0	1	1	0
pn	0	0	0	0	0	0
sl	0	0	0	0	0	0
se	0	0	0	0	1	1
ss	0	0	0	0	0	0
ta	0	0	0	1	0	0
an	0	0	0	0	0	0
at	0	0	0	0	0	0
bp	0	0	0	0	0	0
bm	0	0	0	0	0	0
ci	0	0	0	0	0	0
ea	0	0	1	0	0	1
et	0	0	0	0	0	0
hg	2	2	1	1	0	0
ho	0	0	0	0	0	0
ve	0	0	0	0	0	0
xs	0	0	0	0	0	0
al	0	0	0	0	0	0
at	2	1	0	0	0	0
aw	0	0	1	0	0	0
be	2	2	3	5	5	5
ce	0	0	0	0	0	0
el	2	0	1	1	1	1
ep	2	2	1	1	1	0
mp	2	1	4	2	1	0
po	0	0	0	0	0	0
sc	0	0	0	0	0	0
scr	1	0	1	1	1	1
ai	0	1	1	1	0	1

ac	0	1	0	0	1	0
ea	0	0	0	0	0	0
aa	2	3	3	1	0	0
ba	1	4	3	1	1	0
bb	2	2	1	1	1	0
th	0	0	0	0	0	0
ap	0	0	0	0	1	3
bi	2	1	1	2	0	0
bs	1	0	0	0	0	0
em	0	0	1	1	0	2
es	0	0	0	0	0	0
kp	0	0	0	0	0	1
pa	0	0	0	0	0	0
po	0	0	0	0	0	0
sk	0	0	0	0	0	0
tl	0	0	0	0	0	0
tt	0	1	0	0	0	0
op	0	5	0	2	2	1
ov	3	0	0	1	0	1

	85	86	87	88	89
et	0	2	3	2	0
lt	0	2	0	2	0
pg	0	0	0	0	1
ye	0	0	0	0	0
xm	1	0	1	0	1
xs	0	0	0	0	0
za	0	0	0	0	0
zg	0	1	0	0	0
ba	0	1	1	0	0
cb	0	0	0	0	0
cp	0	0	1	1	1
hc	0	0	0	0	0
hg	0	0	0	0	0
hv	1	0	1	0	0
pn	0	0	0	0	0
sl	0	0	0	0	0
se	1	0	0	1	1
ss	0	0	0	0	0
ta	1	1	1	0	0
an	0	0	0	0	0
at	0	0	0	0	0
bp	0	0	0	0	0
bm	0	0	0	0	0
ci	0	0	0	0	0
ea	2	1	1	1	1
et	0	0	0	0	0
hg	0	1	2	2	1
ho	0	0	0	0	0
ve	0	0	0	0	0
xs	0	0	0	0	0
al	0	0	0	0	0
at	1	0	1	0	1
aw	0	0	0	1	0
be	5	5	5	5	5
ce	0	0	0	0	0
el	0	0	0	0	0
ep	0	0	1	1	1
mp	1	1	2	2	0

po	0	0	0	0	0
sc	0	0	0	0	0
scr	1	0	0	1	1
ai	1	1	1	1	2
ac	0	0	1	0	0
ea	0	0	0	0	0
aa	1	2	1	0	3
ba	3	2	3	1	3
bb	2	0	1	0	0
th	0	0	0	0	0
ap	3	2	2	1	4
bi	2	1	2	0	1
bs	1	0	0	0	0
em	0	0	0	1	1
es	0	0	0	0	0
kp	0	1	0	1	0
pa	0	0	0	0	0
po	0	0	0	0	0
sk	0	0	0	0	0
tl	0	0	0	0	0
tt	0	0	0	0	0
op	0	0	1	4	0
ov	0	0	1	0	0

Log base 10

SIMPSON DIVERSITY INDEX

Sample	Index	Evenness	Number of species
1	0.8476	1.0893	6
2	0.8889	0.9843	8
3	0.8889	0.9843	8
4	0.8421	0.9965	7
5	0.8309	1.0678	6
6	0.8775	0.9195	9
7	0.7879	1.1272	5
8	0.9015	0.8353	12
9	0.9500	0.7890	16
10	0.9177	0.8813	11
11	0.9792	0.7094	24
12	0.9765	0.7075	24
13	0.9804	0.7013	25
14	0.9762	0.7934	17
15	0.9858	0.7239	23
16	0.9830	0.6947	26
17	0.9828	0.7217	23
18	0.9830	0.7031	25
19	0.9806	0.7201	23
20	0.9875	0.6899	27
21	0.9772	0.7391	21
22	0.9786	0.7000	25
23	0.9798	0.7009	25
24	0.9785	0.7186	23
25	0.9656	0.7551	19
26	0.9754	0.7377	21
27	0.9895	0.6699	30
28	0.9825	0.6944	26
29	0.9825	0.6944	26
30	0.9840	0.6954	26

31	0.9880	0.6689	30
32	0.9833	0.6724	29
33	0.9840	0.6954	26
34	0.9772	0.6906	26
35	0.9819	0.6939	26
36	0.9811	0.6933	26
37	0.9801	0.7197	23
38	0.9754	0.7067	24
39	0.9754	0.7377	21
40	0.9720	0.7241	22
41	0.9785	0.7289	22
42	0.9773	0.7081	24
43	0.9709	0.7343	21
44	0.9793	0.6696	29
45	0.9835	0.6871	27
46	0.9778	0.6757	28
47	0.9697	0.7334	21
48	0.9630	0.7283	21
49	0.9718	0.7469	20
50	0.9810	0.6708	29
51	0.9779	0.6621	30
52	0.9840	0.6799	28
53	0.9756	0.6895	26
54	0.9756	0.6671	29
55	0.9768	0.6824	27
56	0.9697	0.7334	21
57	0.9678	0.7439	20
58	0.9328	0.8644	12
59	0.9701	0.7586	19
60	0.9415	0.8006	15
61	0.9673	0.8440	14
62	0.9524	0.8098	15
63	0.8901	0.8901	10
64	0.8077	0.8944	8
65	0.9103	0.9539	9
66	0.9351	0.8394	13
67	0.8681	0.9613	8
68	0.9103	0.9539	9
69	0.9091	0.9527	9
70	0.9044	0.9044	10
71	0.8758	0.8758	10
72	0.9600	0.7648	18
73	0.9745	0.7060	24
74	0.9678	0.7439	20
75	0.9773	0.7177	23
76	0.9683	0.7323	21
77	0.9709	0.7463	20
78	0.9656	0.7551	19
79	0.9683	0.7442	20
80	0.9409	0.8000	15
81	0.9609	0.7515	19
82	0.9601	0.7508	19
83	0.9368	0.8174	14
84	0.9211	0.8535	12
85	0.9459	0.7855	16
86	0.9457	0.8041	15
87	0.9621	0.7277	21
88	0.9471	0.7697	17
89	0.9392	0.7800	16

Analysis finished at - 2:32:06pm

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*********************
*****  M V S P  *****
*********************
Ver. 2.1e

Date of analysis - January 31, 1995
Time of analysis -   2:32:42pm

Input file name  - A:\JORNADAS.MVS
Output directed to printer


DIVERSITY INDICES
=================

Jornada

File of 61 rows x 89 columns


Log base 10


SHANNON DIVERSITY INDEX
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Sample	Index	Evenness	Number of species
1	0.7194	0.9245	6
2	0.8429	0.9333	8
3	0.8429	0.9333	8
4	0.7524	0.8904	7
5	0.7061	0.9074	6
6	0.8660	0.9075	9
7	0.6185	0.8849	5
8	0.9654	0.8946	12
9	1.1298	0.9383	16
10	0.9660	0.9276	11
11	1.3405	0.9713	24
12	1.3354	0.9675	24
13	1.3587	0.9720	25
14	1.1967	0.9726	17
15	1.3338	0.9795	23
16	1.3770	0.9732	26
17	1.3300	0.9767	23
18	1.3657	0.9769	25
19	1.3287	0.9757	23
20	1.4075	0.9833	27
21	1.2807	0.9686	21
22	1.3521	0.9672	25
23	1.3591	0.9722	25
24	1.3213	0.9703	23
25	1.2240	0.9572	19
26	1.2806	0.9686	21
27	1.4543	0.9845	30
28	1.3828	0.9772	26
29	1.3828	0.9772	26
30	1.3831	0.9775	26
31	1.4482	0.9804	30
32	1.4251	0.9745	29
33	1.3831	0.9775	26
34	1.3678	0.9667	26

35	1.3734	0.9707	26
36	1.3726	0.9700	26
37	1.3199	0.9693	23
38	1.3292	0.9630	24
39	1.2760	0.9651	21
40	1.2898	0.9608	22
41	1.3092	0.9753	22
42	1.3361	0.9680	24
43	1.2670	0.9583	21
44	1.4108	0.9647	29
45	1.3993	0.9776	27
46	1.3987	0.9665	28
47	1.2745	0.9639	21
48	1.2592	0.9523	21
49	1.2652	0.9724	20
50	1.4245	0.9741	29
51	1.4172	0.9594	30
52	1.4075	0.9726	28
53	1.3649	0.9646	26
54	1.4016	0.9584	29
55	1.3812	0.9649	27
56	1.2795	0.9677	21
57	1.2488	0.9598	20
58	1.0180	0.9433	12
59	1.2412	0.9706	19
60	1.1010	0.9361	15
61	1.1089	0.9675	14
62	1.1132	0.9465	15
63	0.8965	0.8965	10
64	0.7548	0.8358	8
65	0.8824	0.9247	9
66	1.0378	0.9316	13
67	0.8105	0.8975	8
68	0.8824	0.9247	9
69	0.8785	0.9206	9
70	0.9186	0.9186	10
71	0.8829	0.8829	10
72	1.1891	0.9473	18
73	1.3321	0.9651	24
74	1.2488	0.9598	20
75	1.3223	0.9710	23
76	1.2739	0.9634	21
77	1.2536	0.9636	20
78	1.2316	0.9631	19
79	1.2657	0.9728	20
80	1.1057	0.9401	15
81	1.2136	0.9490	19
82	1.2127	0.9484	19
83	1.0661	0.9302	14
84	0.9945	0.9215	12
85	1.1290	0.9376	16
86	1.1092	0.9431	15
87	1.2529	0.9476	21
88	1.1503	0.9349	17
89	1.1126	0.9240	16

Analysis finished at - 2:32:44pm

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*****  M V S P  *****
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Ver. 2.1e

Date of analysis - December 22, 1994
Time of analysis -  4:08:04pm

Input file name  - A:\JORNADAS.MVD
Output directed to printer
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CLUSTER ANALYSIS
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Jornada - PERCENT

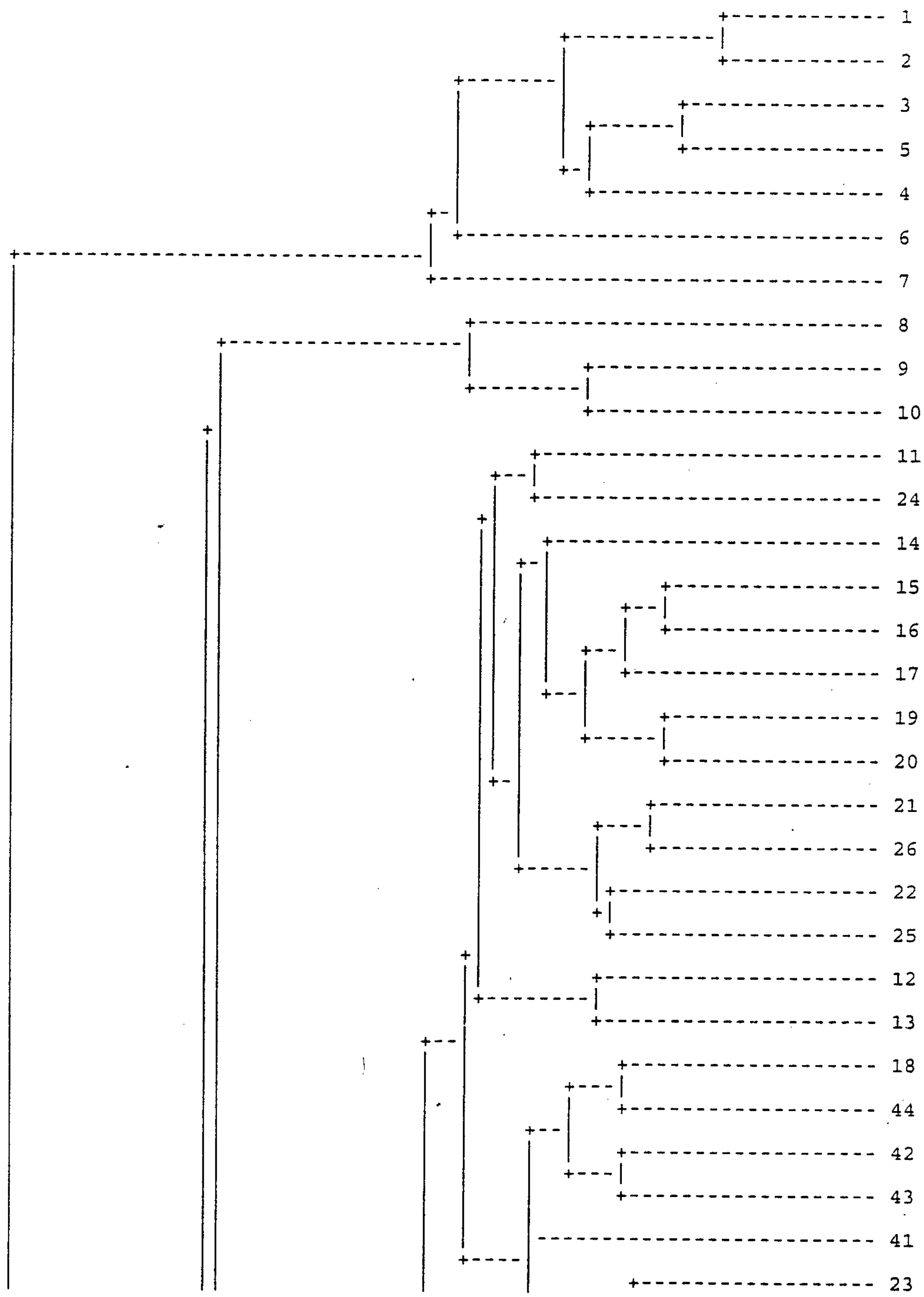
File of 89 rows x 89 columns

UNWEIGHTED PAIR GROUP AVERAGE METHOD

NODE	GROUP 1	GROUP 2	SIMILARITY	NUMBER OF OBJECTS IN FUSED GROUP
1	1	2	82.3529	2
2	64	67	81.4815	2
3	38	39	81.3559	2
4	36	37	80.0000	2
5	65	69	80.0000	2
6	NODE 3	40	79.4134	3
7	31	33	78.8732	2
8	27	35	78.2609	2
9	77	78	77.9661	2
10	3	5	77.7778	2
11	19	20	76.9231	2
12	50	52	76.9231	2
13	15	16	76.6667	2
14	82	87	76.6667	2
15	34	NODE 4	76.3597	3
16	NODE 12	54	75.5934	3
17	NODE 8	28	75.1208	3
18	21	26	75.0000	2
19	NODE 5	68	74.6154	3
20	NODE 16	51	74.5676	4
21	47	53	73.9726	2
22	56	57	73.8462	2
23	23	NODE 7	73.7319	3
24	NODE 23	30	73.0775	4
25	74	75	73.0159	2
26	18	44	72.9730	2
27	NODE 13	17	72.8110	3
28	NODE 15	NODE 6	72.6778	6
29	42	43	72.1311	2
30	45	46	71.6049	2
31	59	60	71.4286	2
32	22	25	70.9677	2
33	NODE 24	NODE 17	70.6879	7

34	NODE 21	NODE 20	70.4985	6
35	NODE 33	29	70.0428	8
36	NODE 2	NODE 19	70.0247	5
37	55	NODE 22	69.7871	3
38	76	81	69.6970	2
39	12	13	69.5652	2
40	NODE 18	NODE 32	69.5160	4
41	85	89	69.0909	2
42	NODE 34	48	68.6688	7
43	NODE 27	NODE 11	68.6139	5
44	70	71	68.5714	2
45	NODE 35	32	68.2231	9
46	9	10	68.0851	2
47	NODE 45	NODE 28	67.9018	15
48	NODE 10	4	67.5439	3
49	NODE 26	NODE 29	67.0422	4
50	NODE 14	83	66.3589	3
51	NODE 36	66	66.2427	6
52	NODE 1	NODE 48	65.6358	5
53	NODE 30	NODE 42	65.3640	9
54	NODE 51	NODE 44	65.0829	8
55	14	NODE 43	64.3194	6
56	NODE 49	41	62.7369	5
57	58	NODE 31	62.6877	3
58	11	24	62.5000	2
59	84	88	62.5000	2
60	NODE 9	79	62.4534	3
61	NODE 56	NODE 47	61.8780	20
62	73	NODE 38	61.3576	3
63	62	63	61.1111	2
64	NODE 55	NODE 40	60.7727	10
65	NODE 25	NODE 60	60.6232	5
66	NODE 53	NODE 37	60.4380	12
67	72	NODE 62	58.5254	4
68	NODE 50	86	58.4967	4
69	NODE 66	49	57.9041	13
70	NODE 58	NODE 64	57.6147	12
71	NODE 70	NODE 39	56.9697	14
72	NODE 68	NODE 41	56.0008	6
73	61	NODE 63	55.6250	3
74	NODE 71	NODE 61	55.5560	34
75	8	NODE 46	55.1198	3
76	NODE 67	NODE 65	54.1839	9
77	NODE 52	6	53.8496	6
78	NODE 72	NODE 59	53.6509	8
79	NODE 73	NODE 54	51.1516	11
80	NODE 77	7	51.1036	7
81	NODE 74	NODE 69	50.8615	47
82	NODE 76	80	46.2859	10
83	NODE 82	NODE 78	45.3825	18
84	NODE 57	NODE 79	40.8957	14
85	NODE 81	NODE 83	31.3014	65
86	NODE 75	NODE 85	28.0352	68
87	NODE 86	NODE 84	25.5136	82
88	NODE 80	NODE 87	2.9744	89

Analysis finished at - 4:08:21pm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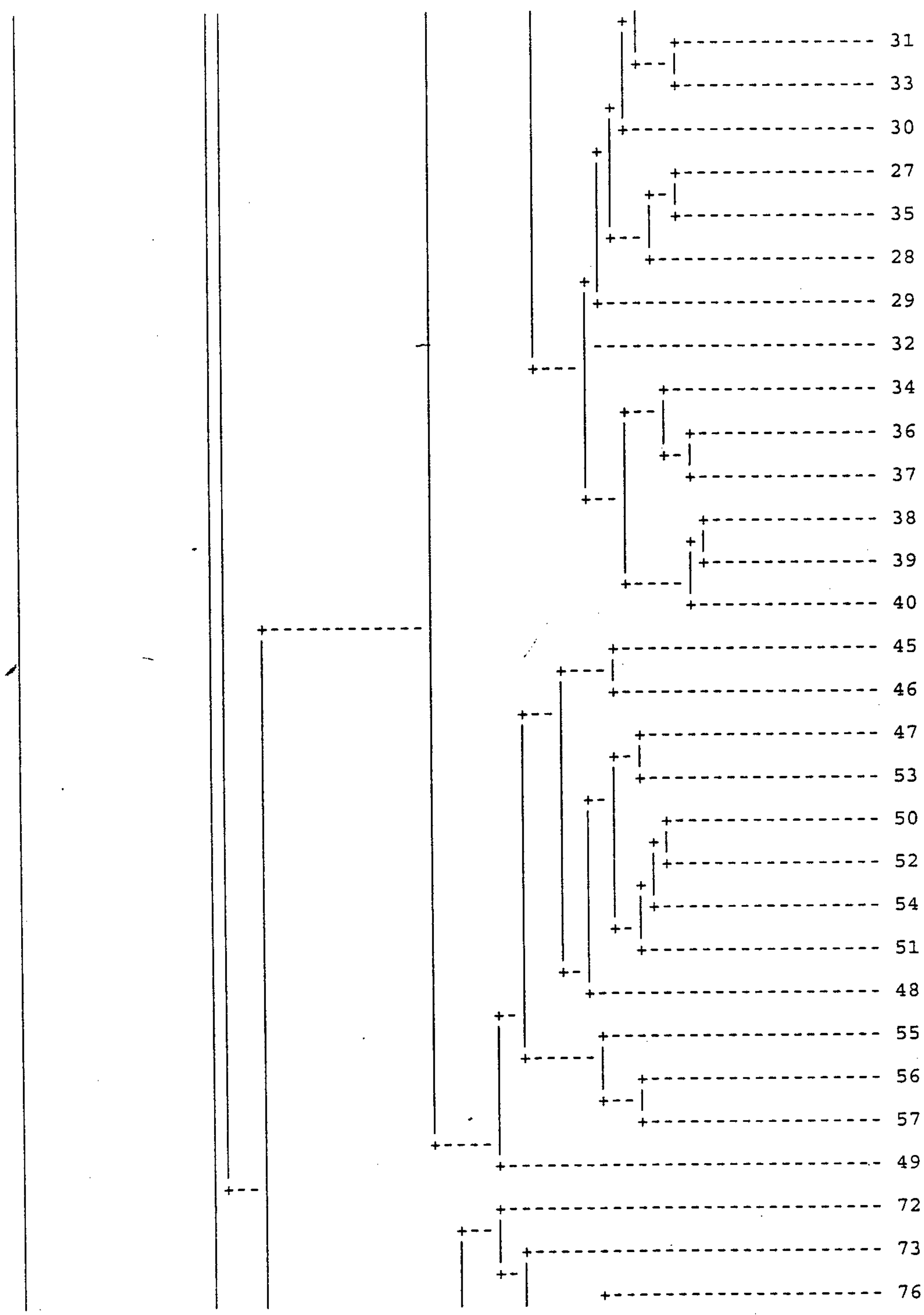
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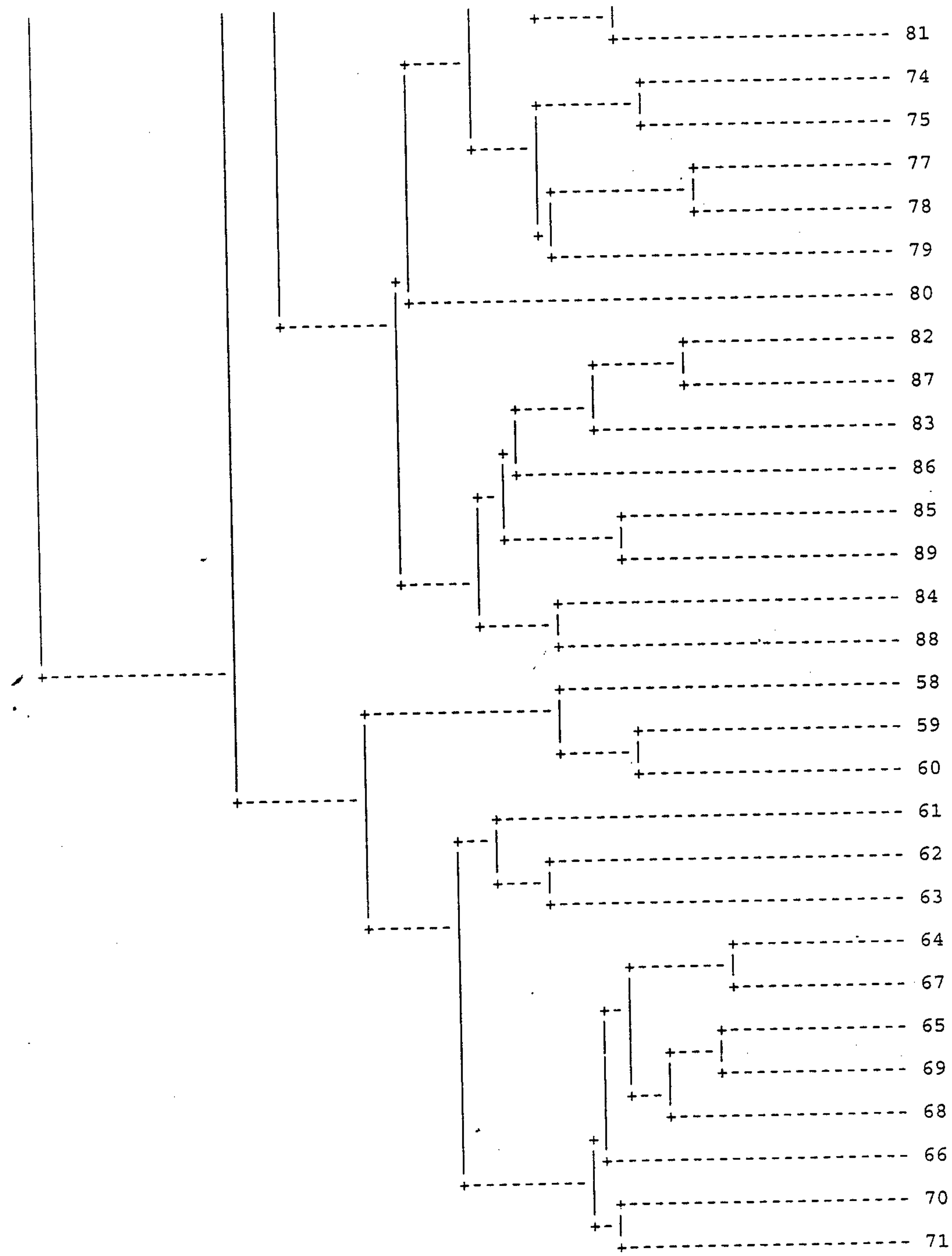
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*********************
*****  M V S P  *****
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Ver. 2.1e

Date of analysis - December 22, 1994
Time of analysis -  4:02:21pm

Input file name  - A:\JORNADAS.MVS
Output directed to printer
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SIMILARITY AND DISTANCE COEFFICIENTS
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Jornada

File of 61 rows x 89 columns

PERCENT SIMILARITY

	1	2	3	4	5	6
1	100	82.3529	64.7059	58.8235	56.2500	42.1053
2	82.3529	100	78.9474	68.4211	66.6667	52.3810
3	64.7059	78.9474	100	68.4211	77.7778	57.1429
4	58.8235	68.4211	68.4211	100	66.6667	47.6190
5	56.2500	66.6667	77.7778	66.6667	100	70
6	42.1053	52.3810	57.1429	47.6190	70	100
7	44.4444	51.6129	58.0645	51.6129	55.1724	45.7143
8	22.7273	20.8333	20.8333	25	21.7391	19.2308
9	5	4.5455	0	0	0	0
10	0	0	0	0	0	0
11	8.3333	7.6923	3.8462	3.8462	0	0
12	8	3.7037	0	0	0	6.8966
13	4.0816	3.7736	0	0	0	7.0175
14	11.1111	5	0	0	0	9.0909
15	4.7619	4.3478	0	0	0	8
16	8.3333	3.8462	0	0	0	7.1429
17	4.5455	4.1667	0	0	0	3.8462
18	8.3333	3.8462	0	0	0	10.7143
19	8.6957	4	0	0	0	7.4074
20	8.1633	3.7736	0	0	0	10.5263
21	9.5238	4.3478	0	0	0	8
22	8.1633	3.7736	0	0	0	7.0175
23	8	3.7037	0	0	0	10.3448
24	4.3478	4	0	0	0	11.1111
25	9.3023	4.2553	0	0	0	3.9216
26	9.0909	4.1667	4.1667	0	4.3478	15.3846
27	7.6923	3.5714	0	0	0	13.3333
28	3.9216	3.6364	3.6364	0	3.7736	13.5593
29	0	0	3.6364	0	3.7736	13.5593
30	12.2449	7.5472	3.7736	3.7736	0	10.5263
31	7.6923	3.5714	0	0	0	13.3333
32	7.2727	6.7797	6.7797	3.3898	3.5088	9.5238
33	8.1633	3.7736	0	0	0	10.5263
34	7.5472	3.5088	0	0	0	9.8361

35	4.2553	3.9216	0	0	0	10.9091
36	8.3333	3.8462	0	0	0	10.7143
37	4.7619	4.3478	0	0	0	12
38	8.3333	3.8462	0	0	0	10.7143
39	4.8780	4.4444	0	0	0	12.2449
40	4.3478	4	0	0	0	14.8148
41	4.3478	4	0	0	0	11.1111
42	8.3333	3.8462	0	0	0	14.2857
43	9.3023	4.2553	4.2553	0	4.4444	11.7647
44	7.1429	3.3333	3.3333	0	3.4483	12.5000
45	3.8462	3.5714	3.5714	0	3.7037	13.3333
46	6.7797	3.1746	3.1746	0	3.2787	11.9403
47	8.3333	3.8462	3.8462	0	4	7.1429
48	8	3.7037	0	0	0	10.3448
49	4.2553	3.9216	3.9216	0	4.0816	7.2727
50	6.7797	3.1746	3.1746	0	3.2787	11.9403
51	7.0175	3.2787	3.2787	0	3.3898	9.2308
52	4.0816	3.7736	3.7736	0	3.9216	10.5263
53	7.2727	3.3898	3.3898	0	3.5088	6.3492
54	6.8966	3.2258	3.2258	0	3.3333	12.1212
55	7.0175	3.2787	3.2787	0	3.3898	9.2308
56	8	3.7037	0	0	0	3.4483
57	4.4444	4.0816	0	0	0	7.5472
58	10.5263	4.7619	0	0	0	0
59	4.4444	4.0816	0	0	0	0
60	0	0	0	0	0	0
61	0	0	0	0	0	0
62	5.4054	4.8780	0	0	0	0
63	6.8966	6.0606	0	0	0	0
64	0	0	0	0	0	0
65	0	0	0	0	0	0
66	0	0	0	0	0	0
67	0	0	0	0	0	0
68	0	0	0	0	0	0
69	0	0	0	0	0	0
70	0	0	0	0	0	0
71	0	0	0	0	0	0
72	0	0	0	0	0	0
73	0	0	0	0	0	3.3333
74	0	0	4.0816	0	4.2553	7.5472
75	0	0	0	0	0	3.5714
76	0	0	0	0	0	3.3898
77	0	0	0	0	0	3.9216
78	0	0	4	0	4.1667	7.4074
79	3.9216	3.6364	3.6364	3.6364	0	3.3898
80	0	0	0	0	0	7.6923
81	0	0	0	0	0	3.7736
82	0	0	0	0	0	4
83	0	0	5.1282	0	5.4054	4.6512
84	0	0	5.1282	0	5.4054	4.6512
85	0	0	4.3478	0	4.5455	8
86	0	0	4.6512	0	4.8780	8.5106
87	0	0	3.8462	0	4	7.1429
88	0	0	4.2553	0	4.4444	3.9216
89	0	0	4.2553	0	4.4444	7.8431
	7	8	9	10	11	12
1	44.4444	22.7273	5	0	8.3333	8
2	51.6129	20.8333	4.5455	0	7.6923	3.7037

3	58.0645	20.8333	0	0	3.8462	0
4	51.6129	25	0	0	3.8462	0
5	55.1724	21.7391	0	0	0	0
6	45.7143	19.2308	0	0	0	6.8966
7	100	29.2683	0	0	4.4444	0
8	29.2683	100	59.2593	50.9804	32.2581	18.7500
9	0	59.2593	100	68.0851	48.2759	43.3333
10	0	50.9804	68.0851	100	50.9091	31.5789
11	4.4444	32.2581	48.2759	50.9091	100	55.8824
12	0	18.7500	43.3333	31.5789	55.8824	100
13	0	22.2222	44.0678	35.7143	56.7164	69.5652
14	0	16	39.1304	23.2558	48.1481	64.2857
15	0	21.4286	53.8462	32.6531	60	67.7419
16	0	16.1290	41.3793	25.4545	57.5758	70.5882
17	0	20.6897	48.1481	31.3725	58.0645	59.3750
18	0	22.5806	48.2759	32.7273	54.5455	67.6471
19	0	13.3333	39.2857	30.1887	46.8750	60.6061
20	0	12.6984	40.6780	32.1429	59.7015	60.8696
21	0	17.8571	46.1538	40.8163	53.3333	64.5161
22	0	19.0476	40.6780	28.5714	44.7761	55.0725
23	0	18.7500	46.6667	31.5789	52.9412	65.7143
24	0	26.6667	46.4286	37.7358	62.5000	60.6061
25	0	10.5263	33.9623	24	52.4590	50.7937
26	4.8780	17.2414	44.4444	35.2941	48.3871	56.2500
27	0	21.2121	45.1613	33.8983	57.1429	61.1111
28	4.1667	24.6154	52.4590	34.4828	52.1739	59.1549
29	4.1667	30.7692	52.4590	44.8276	52.1739	53.5211
30	4.3478	31.7460	50.8475	35.7143	56.7164	55.0725
31	0	15.1515	35.4839	23.7288	51.4286	58.3333
32	7.6923	26.0870	49.2308	29.0323	54.7945	53.3333
33	0	25.3968	50.8475	28.5714	41.7910	49.2754
34	0	23.8806	50.7937	36.6667	53.5211	57.5342
35	0	19.6721	45.6140	33.3333	49.2308	50.7463
36	0	22.5806	51.7241	29.0909	45.4545	52.9412
37	0	14.2857	46.1538	20.4082	46.6667	54.8387
38	0	16.1290	48.2759	32.7273	42.4242	55.8824
39	0	18.1818	50.9804	33.3333	40.6780	45.9016
40	0	23.3333	46.4286	33.9623	46.8750	51.5152
41	0	16.6667	39.2857	30.1887	43.7500	48.4848
42	0	22.5806	37.9310	25.4545	42.4242	55.8824
43	5	10.5263	33.9623	28	49.1803	50.7937
44	3.7736	25.7143	39.3939	25.3968	45.9459	55.2632
45	4.0816	24.2424	41.9355	27.1186	45.7143	52.7778
46	7.1429	21.9178	31.8841	30.3030	44.1558	50.6329
47	4.4444	9.6774	31.0345	25.4545	45.4545	50
48	0	12.5000	33.3333	24.5614	44.1176	54.2857
49	9.0909	19.6721	35.0877	25.9259	30.7692	47.7612
50	7.1429	13.6986	34.7826	27.2727	46.7532	55.6962
51	3.7037	14.0845	32.8358	18.7500	40	54.5455
52	4.3478	19.0476	40.6780	32.1429	47.7612	49.2754
53	7.6923	23.1884	33.8462	25.8065	41.0959	53.3333
54	7.2727	19.4444	35.2941	24.6154	39.4737	51.2821
55	3.7037	16.9014	29.8507	15.6250	37.3333	51.9481
56	0	15.6250	26.6667	14.0351	44.1176	51.4286
57	0	6.7797	25.4545	15.3846	44.4444	46.1538
58	0	3.8462	25	4.4444	39.2857	44.8276
59	0	16.9492	21.8182	19.2308	44.4444	40
60	0	21.8182	27.4510	33.3333	44.0678	36.0656
61	0	21.2766	27.9070	20	35.2941	26.4151
62	0	11.7647	34.0426	18.1818	40	42.1053

63	0	4.6512	30.7692	16.6667	29.7872	32.6531
64	0	4.7619	21.0526	11.4286	17.3913	20.8333
65	0	4.7619	26.3158	17.1429	17.3913	25
66	0	15.6863	29.7872	27.2727	29.0909	31.5789
67	0	9.3023	25.6410	16.6667	21.2766	24.4898
68	0	9.5238	21.0526	11.4286	17.3913	16.6667
69	0	4.8780	27.0270	11.7647	17.7778	25.5319
70	0	4.3478	19.0476	5.1282	16	19.2308
71	0	17.0213	27.9070	25	19.6078	22.6415
72	0	29.0909	47.0588	41.6667	33.8983	29.5082
73	0	30.3030	48.3871	40.6780	54.2857	44.4444
74	4.7619	10.1695	21.8182	7.6923	34.9206	43.0769
75	0	12.9032	31.0345	18.1818	36.3636	41.1765
76	0	27.6923	42.6230	37.9310	40.5797	39.4366
77	0	7.0175	26.4151	16	29.5082	31.7460
78	4.6512	13.3333	32.1429	22.6415	21.8750	27.2727
79	4.1667	18.4615	32.7869	20.6897	37.6812	33.8028
80	0	10.3448	18.5185	3.9216	19.3548	25
81	0	20.3390	36.3636	30.7692	34.9206	33.8462
82	0	14.2857	30.7692	24.4898	36.6667	32.2581
83	6.2500	12.2449	31.1111	23.8095	33.9623	25.4545
84	18.7500	4.0816	13.3333	14.2857	11.3208	7.2727
85	15.3846	14.2857	19.2308	16.3265	23.3333	19.3548
86	11.1111	7.5472	16.3265	17.3913	24.5614	23.7288
87	8.8889	12.9032	24.1379	25.4545	36.3636	29.4118
88	5	10.5263	26.4151	32	29.5082	25.3968
89	15	10.5263	22.6415	20	19.6721	19.0476

	13	14	15	16	17	18
1	4.0816	11.1111	4.7619	8.3333	4.5455	8.3333
2	3.7736	5	4.3478	3.8462	4.1667	3.8462
3	0	0	0	0	0	0
4	0	0	0	0	0	0
5	0	0	0	0	0	0
6	7.0175	9.0909	8	7.1429	3.8462	10.7143
7	0	0	0	0	0	0
8	22.2222	16	21.4286	16.1290	20.6897	22.5806
9	44.0678	39.1304	53.8462	41.3793	48.1481	48.2759
10	35.7143	23.2558	32.6531	25.4545	31.3725	32.7273
11	56.7164	48.1481	60	57.5758	58.0645	54.5455
12	69.5652	64.2857	67.7419	70.5882	59.3750	67.6471
13	100	58.1818	65.5738	59.7015	53.9683	59.7015
14	58.1818	100	75	66.6667	60	59.2593
15	65.5738	75	100	76.6667	71.4286	63.3333
16	59.7015	66.6667	76.6667	100	74.1935	75.7576
17	53.9683	60	71.4286	74.1935	100	70.9677
18	59.7015	59.2593	63.3333	75.7576	70.9677	100
19	49.2308	65.3846	68.9655	68.7500	70	65.6250
20	52.9412	54.5455	62.2951	68.6567	73.0159	65.6716
21	52.4590	58.3333	62.9630	60	67.8571	63.3333
22	50	50.9091	59.0164	65.6716	60.3175	56.7164
23	46.3768	57.1429	67.7419	67.6471	65.6250	64.7059
24	52.3077	57.6923	62.0690	59.3750	63.3333	62.5000
25	45.1613	48.9796	54.5455	55.7377	56.1404	52.4590
26	44.4444	52	53.5714	58.0645	62.0690	64.5161
27	56.3380	55.1724	62.5000	62.8571	66.6667	65.7143
28	60	49.1228	60.3175	52.1739	58.4615	55.0725
29	51.4286	42.1053	50.7937	46.3768	55.3846	55.0725
30	50	50.9091	59.0164	62.6866	60.3175	65.6716

31	50.7042	48.2759	53.1250	60	54.5455	60
32	45.9459	42.6230	56.7164	63.0137	60.8696	57.5342
33	47.0588	40	49.1803	50.7463	57.1429	56.7164
34	50	50.8475	58.4615	64.7887	59.7015	67.6056
35	48.4848	45.2830	57.6271	55.3846	62.2951	55.3846
36	53.7313	44.4444	53.3333	57.5758	51.6129	63.6364
37	52.4590	45.8333	62.9630	56.6667	60.7143	60
38	47.7612	44.4444	56.6667	57.5758	61.2903	63.6364
39	50	46.8085	64.1509	54.2373	61.8182	61.0169
40	49.2308	46.1538	58.6207	59.3750	60	65.6250
41	49.2308	42.3077	55.1724	59.3750	63.3333	65.6250
42	47.7612	51.8519	50	60.6061	51.6129	69.6970
43	41.9355	44.8980	54.5455	59.0164	52.6316	55.7377
44	45.3333	41.9355	50	62.1622	54.2857	72.9730
45	42.2535	44.8276	59.3750	54.2857	54.5455	57.1429
46	48.7179	40	47.8873	46.7532	41.0959	46.7532
47	41.7910	40.7407	46.6667	48.4848	41.9355	51.5152
48	40.5797	46.4286	54.8387	64.7059	56.2500	58.8235
49	39.3939	37.7358	44.0678	49.2308	52.4590	55.3846
50	53.8462	46.1538	50.7042	54.5455	49.3151	51.9481
51	47.3684	38.0952	46.3768	53.3333	42.2535	48
52	50	40	55.7377	53.7313	50.7937	56.7164
53	51.3514	42.6230	47.7612	52.0548	43.4783	54.7945
54	46.7532	34.3750	42.8571	55.2632	47.2222	57.8947
55	42.1053	31.7460	40.5797	53.3333	36.6197	53.3333
56	46.3768	39.2857	45.1613	52.9412	40.6250	52.9412
57	40.6250	31.3725	45.6140	50.7937	40.6780	44.4444
58	35.0877	31.8182	36	46.4286	34.6154	42.8571
59	37.5000	19.6078	31.5789	38.0952	30.5085	34.9206
60	36.6667	17.0213	30.1887	30.5085	29.0909	33.8983
61	30.7692	25.6410	26.6667	23.5294	25.5319	31.3725
62	35.7143	37.2093	32.6531	36.3636	31.3725	40
63	25	34.2857	34.1463	29.7872	32.5581	29.7872
64	21.2766	29.4118	25	21.7391	23.8095	21.7391
65	21.2766	29.4118	25	26.0870	28.5714	26.0870
66	32.1429	37.2093	36.7347	29.0909	31.3725	25.4545
67	25	28.5714	29.2683	21.2766	23.2558	21.2766
68	17.0213	23.5294	20	17.3913	19.0476	13.0435
69	21.7391	30.3030	25.6410	26.6667	29.2683	22.2222
70	19.6078	26.3158	22.7273	20	21.7391	16
71	19.2308	25.6410	26.6667	19.6078	25.5319	15.6863
72	30	21.2766	30.1887	27.1186	32.7273	30.5085
73	45.0704	37.9310	46.8750	42.8571	48.4848	42.8571
74	46.8750	23.5294	31.5789	38.0952	37.2881	34.9206
75	41.7910	29.6296	36.6667	36.3636	38.7097	36.3636
76	40	24.5614	31.7460	28.9855	36.9231	23.1884
77	35.4839	20.4082	32.7273	26.2295	35.0877	29.5082
78	27.6923	15.3846	27.5862	25	33.3333	21.8750
79	34.2857	17.5439	31.7460	28.9855	30.7692	28.9855
80	28.5714	20	28.5714	22.5806	27.5862	25.8065
81	34.3750	19.6078	35.0877	28.5714	30.5085	31.7460
82	39.3443	20.8333	37.0370	26.6667	32.1429	30
83	25.9259	19.5122	34.0426	26.4151	36.7347	22.6415
84	7.4074	0	12.7660	7.5472	8.1633	11.3208
85	26.2295	8.3333	22.2222	20	25	20
86	27.5862	13.3333	23.5294	21.0526	18.8679	17.5439
87	38.8060	22.2222	33.3333	24.2424	29.0323	24.2424
88	25.8065	12.2449	29.0909	19.6721	21.0526	19.6721
89	25.8065	12.2449	21.8182	16.3934	21.0526	19.6721

	19	20	21	22	23	24
1	8.6957	8.1633	9.5238	8.1633	8	4.3478
2	4	3.7736	4.3478	3.7736	3.7037	4
3	0	0	0	0	0	0
4	0	0	0	0	0	0
5	0	0	0	0	0	0
6	7.4074	10.5263	8	7.0175	10.3448	11.1111
7	0	0	0	0	0	0
8	13.3333	12.6984	17.8571	19.0476	18.7500	26.6667
9	39.2857	40.6780	46.1538	40.6780	46.6667	46.4286
10	30.1887	32.1429	40.8163	28.5714	31.5789	37.7358
11	46.8750	59.7015	53.3333	44.7761	52.9412	62.5000
12	60.6061	60.8696	64.5161	55.0725	65.7143	60.6061
13	49.2308	52.9412	52.4590	50	46.3768	52.3077
14	65.3846	54.5455	58.3333	50.9091	57.1429	57.6923
15	68.9655	62.2951	62.9630	59.0164	67.7419	62.0690
16	68.7500	68.6567	60	65.6716	67.6471	59.3750
17	70	73.0159	67.8571	60.3175	65.6250	63.3333
18	65.6250	65.6716	63.3333	56.7164	64.7059	62.5000
19	100	76.9231	72.4138	67.6923	69.6970	61.2903
20	76.9231	100	72.1311	64.7059	75.3623	70.7692
21	72.4138	72.1311	100	72.1311	70.9677	68.9655
22	67.6923	64.7059	72.1311	100	66.6667	58.4615
23	69.6970	75.3623	70.9677	66.6667	100	66.6667
24	61.2903	70.7692	68.9655	58.4615	66.6667	100
25	61.0169	67.7419	69.0909	70.9677	69.8413	61.0169
26	60	66.6667	75	66.6667	75	60
27	58.8235	76.0563	68.7500	67.6056	72.2222	73.5294
28	44.7761	60	50.7937	48.5714	67.6056	59.7015
29	47.7612	60	57.1429	51.4286	64.7887	62.6866
30	49.2308	61.7647	59.0164	61.7647	72.4638	67.6923
31	55.8824	67.6056	59.3750	61.9718	75	61.7647
32	47.8873	59.4595	53.7313	51.3514	66.6667	59.1549
33	52.3077	64.7059	55.7377	55.8824	72.4638	55.3846
34	49.2754	61.1111	55.3846	50	71.2329	55.0725
35	50.7937	60.6061	61.0169	54.5455	65.6716	63.4921
36	46.8750	56.7164	56.6667	47.7612	64.7059	53.1250
37	48.2759	55.7377	51.8519	45.9016	67.7419	48.2759
38	59.3750	65.6716	63.3333	47.7612	76.4706	53.1250
39	52.6316	53.3333	56.6038	43.3333	62.2951	52.6316
40	54.8387	55.3846	58.6207	49.2308	66.6667	58.0645
41	54.8387	58.4615	48.2759	46.1538	57.5758	48.3871
42	59.3750	56.7164	56.6667	50.7463	55.8824	53.1250
43	61.0169	54.8387	58.1818	41.9355	63.4921	47.4576
44	50	50.6667	50	53.3333	65.7895	50
45	55.8824	56.3380	50	47.8873	63.8889	55.8824
46	48	51.2821	45.0704	41.0256	60.7595	45.3333
47	50	53.7313	46.6667	38.8060	50	43.7500
48	51.5152	60.8696	54.8387	46.3768	65.7143	51.5152
49	44.4444	45.4545	47.4576	39.3939	50.7463	44.4444
50	53.3333	56.4103	50.7042	43.5897	55.6962	48
51	46.5753	55.2632	43.4783	42.1053	51.9481	41.0959
52	49.2308	61.7647	52.4590	38.2353	57.9710	52.3077
53	45.0704	51.3514	44.7761	37.8378	50.6667	47.8873
54	48.6486	57.1429	45.7143	41.5584	58.9744	40.5405
55	43.8356	47.3684	43.4783	44.7368	59.7403	35.6164
56	39.3939	43.4783	38.7097	37.6812	45.7143	42.4242
57	42.6230	50	42.1053	31.2500	52.3077	42.6230
58	33.3333	35.0877	32	24.5614	37.9310	29.6296

59	29.5082	31.2500	24.5614	25	33.8462	32.7869
60	24.5614	33.3333	30.1887	20	32.7869	35.0877
61	28.5714	26.9231	26.6667	26.9231	26.4151	28.5714
62	30.1887	25	24.4898	21.4286	31.5789	30.1887
63	31.1111	29.1667	34.1463	20.8333	24.4898	31.1111
64	18.1818	17.0213	20	12.7660	16.6667	18.1818
65	22.7273	17.0213	20	25.5319	25	22.7273
66	26.4151	21.4286	24.4898	25	28.0702	26.4151
67	22.2222	16.6667	19.5122	16.6667	20.4082	17.7778
68	13.6364	12.7660	10	17.0213	16.6667	18.1818
69	13.9535	21.7391	15.3846	21.7391	21.2766	23.2558
70	12.5000	15.6863	13.6364	15.6863	15.3846	20.8333
71	16.3265	23.0769	22.2222	15.3846	22.6415	24.4898
72	24.5614	30	30.1887	26.6667	26.2295	28.0702
73	44.1176	53.5211	43.7500	50.7042	47.2222	47.0588
74	26.2295	37.5000	28.0702	37.5000	36.9231	29.5082
75	25	41.7910	33.3333	35.8209	41.1765	34.3750
76	23.8806	37.1429	31.7460	34.2857	33.8028	32.8358
77	37.2881	41.9355	40	38.7097	34.9206	30.5085
78	29.0323	36.9231	34.4828	33.8462	36.3636	25.8065
79	23.8806	31.4286	28.5714	31.4286	30.9859	29.8507
80	20	28.5714	21.4286	19.0476	31.2500	26.6667
81	26.2295	40.6250	31.5789	31.2500	33.8462	29.5082
82	27.5862	36.0656	29.6296	29.5082	25.8065	31.0345
83	27.4510	37.0370	34.0426	18.5185	25.4545	35.2941
84	7.8431	18.5185	12.7660	11.1111	18.1818	7.8431
85	17.2414	26.2295	22.2222	22.9508	25.8065	20.6897
86	14.5455	31.0345	15.6863	20.6897	23.7288	21.8182
87	28.1250	35.8209	30	26.8657	26.4706	31.2500
88	16.9492	32.2581	21.8182	16.1290	25.3968	23.7288
89	16.9492	25.8065	21.8182	19.3548	25.3968	13.5593

	25	26	27	28	29	30
1	9.3023	9.0909	7.6923	3.9216	0	12.2449
2	4.2553	4.1667	3.5714	3.6364	0	7.5472
3	0	4.1667	0	3.6364	3.6364	3.7736
4	0	0	0	0	0	3.7736
5	0	4.3478	0	3.7736	3.7736	0
6	3.9216	15.3846	13.3333	13.5593	13.5593	10.5263
7	0	4.8780	0	4.1667	4.1667	4.3478
8	10.5263	17.2414	21.2121	24.6154	30.7692	31.7460
9	33.9623	44.4444	45.1613	52.4590	52.4590	50.8475
10	24	35.2941	33.8983	34.4828	44.8276	35.7143
11	52.4590	48.3871	57.1429	52.1739	52.1739	56.7164
12	50.7937	56.2500	61.1111	59.1549	53.5211	55.0725
13	45.1613	44.4444	56.3380	60	51.4286	50
14	48.9796	52	55.1724	49.1228	42.1053	50.9091
15	54.5455	53.5714	62.5000	60.3175	50.7937	59.0164
16	55.7377	58.0645	62.8571	52.1739	46.3768	62.6866
17	56.1404	62.0690	66.6667	58.4615	55.3846	60.3175
18	52.4590	64.5161	65.7143	55.0725	55.0725	65.6716
19	61.0169	60	58.8235	44.7761	47.7612	49.2308
20	67.7419	66.6667	76.0563	60	60	61.7647
21	69.0909	75	68.7500	50.7937	57.1429	59.0164
22	70.9677	66.6667	67.6056	48.5714	51.4286	61.7647
23	69.8413	75	72.2222	67.6056	64.7887	72.4638
24	61.0169	60	73.5294	59.7015	62.6866	67.6923
25	100	70.1754	67.6923	59.3750	56.2500	54.8387
26	70.1754	100	66.6667	61.5385	64.6154	63.4921

27	67.6923	66.6667	100	76.7123	68.4932	76.0563
28	59.3750	61.5385	76.7123	100	72.2222	65.7143
29	56.2500	64.6154	68.4932	72.2222	100	71.4286
30	54.8387	63.4921	76.0563	65.7143	71.4286	100
31	64.6154	66.6667	75.6757	65.7534	68.4932	73.2394
32	47.0588	63.7681	67.5325	73.6842	65.7895	70.2703
33	64.5161	63.4921	73.2394	71.4286	74.2857	73.5294
34	54.5455	62.6866	69.3333	67.5676	70.2703	69.4444
35	56.6667	62.2951	78.2609	73.5294	70.5882	69.6970
36	59.0164	61.2903	65.7143	66.6667	72.4638	68.6567
37	54.5455	60.7143	65.6250	66.6667	66.6667	65.5738
38	59.0164	67.7419	68.5714	69.5652	63.7681	65.6716
39	48.1481	58.1818	63.4921	64.5161	58.0645	63.3333
40	47.4576	56.6667	61.7647	59.7015	62.6866	70.7692
41	40.6780	53.3333	55.8824	53.7313	56.7164	58.4615
42	39.3443	58.0645	57.1429	43.4783	55.0725	59.7015
43	46.4286	59.6491	52.3077	46.8750	56.2500	61.2903
44	49.2754	57.1429	64.1026	54.5455	62.3377	69.3333
45	40	54.5455	62.1622	52.0548	57.5342	59.1549
46	38.8889	43.8356	54.3210	52.5000	52.5000	53.8462
47	36.0656	48.3871	48.5714	40.5797	43.4783	47.7612
48	47.6190	59.3750	61.1111	47.8873	47.8873	60.8696
49	33.3333	52.4590	46.3768	44.1176	44.1176	45.4545
50	41.6667	57.5342	54.3210	52.5000	52.5000	51.2821
51	42.8571	39.4366	58.2278	56.4103	46.1538	52.6316
52	45.1613	50.7937	59.1549	57.1429	54.2857	50
53	38.2353	40.5797	54.5455	44.7368	47.3684	48.6486
54	42.2535	50	57.5000	53.1646	53.1646	54.5455
55	45.7143	47.8873	48.1013	48.7179	48.7179	50
56	50.7937	34.3750	50	45.0704	36.6197	46.3768
57	44.8276	37.2881	47.7612	45.4545	39.3939	43.7500
58	35.2941	26.9231	33.3333	30.5085	23.7288	31.5789
59	27.5862	20.3390	35.8209	30.3030	36.3636	37.5000
60	25.9259	18.1818	38.0952	35.4839	38.7097	30
61	34.7826	17.0213	32.7273	29.6296	37.0370	30.7692
62	28	19.6078	27.1186	34.4828	27.5862	28.5714
63	28.5714	23.2558	31.3725	28	28	29.1667
64	14.6341	14.2857	16	16.3265	16.3265	17.0213
65	19.5122	19.0476	24	24.4898	28.5714	29.7872
66	24	23.5294	23.7288	27.5862	31.0345	28.5714
67	14.2857	13.9535	15.6863	20	24	20.8333
68	14.6341	9.5238	16	16.3265	20.4082	21.2766
69	20	19.5122	24.4898	25	25	26.0870
70	17.7778	17.3913	18.5185	18.8679	18.8679	19.6078
71	21.7391	17.0213	25.4545	25.9259	25.9259	23.0769
72	25.9259	21.8182	41.2698	35.4839	35.4839	33.3333
73	52.3077	42.4242	62.1622	52.0548	60.2740	45.0704
74	41.3793	33.8983	44.7761	48.4848	36.3636	31.2500
75	45.9016	32.2581	51.4286	52.1739	46.3768	38.8060
76	34.3750	27.6923	46.5753	44.4444	41.6667	34.2857
77	46.4286	31.5789	49.2308	40.6250	40.6250	29.0323
78	33.8983	30	44.1176	44.7761	38.8060	30.7692
79	34.3750	27.6923	38.3562	36.1111	38.8889	34.2857
80	31.5789	20.6897	36.3636	36.9231	33.8462	28.5714
81	37.9310	27.1186	44.7761	39.3939	45.4545	31.2500
82	36.3636	25	40.6250	38.0952	41.2698	26.2295
83	25	24.4898	38.5965	35.7143	35.7143	29.6296
84	16.6667	16.3265	21.0526	21.4286	14.2857	11.1111
85	29.0909	21.4286	34.3750	31.7460	28.5714	22.9508
86	26.9231	15.0943	36.0656	33.3333	36.6667	20.6897

87	36.0656	29.0323	40	37.6812	40.5797	23.8806
88	21.4286	17.5439	33.8462	34.3750	31.2500	22.5806
89	28.5714	21.0526	30.7692	31.2500	28.1250	19.3548

	31	32	33	34	35	36
1	7.6923	7.2727	8.1633	7.5472	4.2553	8.3333
2	3.5714	6.7797	3.7736	3.5088	3.9216	3.8462
3	0	6.7797	0	0	0	0
4	0	3.3898	0	0	0	0
5	0	3.5088	0	0	0	0
6	13.3333	9.5238	10.5263	9.8361	10.9091	10.7143
7	0	7.6923	0	0	0	0
8	15.1515	26.0870	25.3968	23.8806	19.6721	22.5806
9	35.4839	49.2308	50.8475	50.7937	45.6140	51.7241
10	23.7288	29.0323	28.5714	36.6667	33.3333	29.0909
11	51.4286	54.7945	41.7910	53.5211	49.2308	45.4545
12	58.3333	53.3333	49.2754	57.5342	50.7463	52.9412
13	50.7042	45.9459	47.0588	50	48.4848	53.7313
14	48.2759	42.6230	40	50.8475	45.2830	44.4444
15	53.1250	56.7164	49.1803	58.4615	57.6271	53.3333
16	60	63.0137	50.7463	64.7887	55.3846	57.5758
17	54.5455	60.8696	57.1429	59.7015	62.2951	51.6129
18	60	57.5342	56.7164	67.6056	55.3846	63.6364
19	55.8824	47.8873	52.3077	49.2754	50.7937	46.8750
20	67.6056	59.4595	64.7059	61.1111	60.6061	56.7164
21	59.3750	53.7313	55.7377	55.3846	61.0169	56.6667
22	61.9718	51.3514	55.8824	50	54.5455	47.7612
23	75	66.6667	72.4638	71.2329	65.6716	64.7059
24	61.7647	59.1549	55.3846	55.0725	63.4921	53.1250
25	64.6154	47.0588	64.5161	54.5455	56.6667	59.0164
26	66.6667	63.7681	63.4921	62.6866	62.2951	61.2903
27	75.6757	67.5325	73.2394	69.3333	78.2609	65.7143
28	65.7534	73.6842	71.4286	67.5676	73.5294	66.6667
29	68.4932	65.7895	74.2857	70.2703	70.5882	72.4638
30	73.2394	70.2703	73.5294	69.4444	69.6970	68.6567
31	100	67.5325	78.8732	72	72.4638	71.4286
32	67.5325	100	64.8649	74.3590	69.4444	65.7534
33	78.8732	64.8649	100	72.2222	72.7273	77.6119
34	72	74.3590	72.2222	100	71.4286	78.8732
35	72.4638	69.4444	72.7273	71.4286	100	73.8462
36	71.4286	65.7534	77.6119	78.8732	73.8462	100
37	71.8750	65.6716	75.4098	73.8462	77.9661	80
38	71.4286	71.2329	80.5970	78.8732	73.8462	78.7879
39	53.9683	63.6364	66.6667	65.6250	65.5172	71.1864
40	61.7647	64.7887	67.6923	69.5652	60.3175	65.6250
41	55.8824	61.9718	55.3846	63.7681	60.3175	62.5000
42	62.8571	63.0137	59.7015	70.4225	61.5385	66.6667
43	61.5385	64.7059	58.0645	69.6970	60	62.2951
44	66.6667	59.2593	66.6667	73.4177	60.2740	64.8649
45	59.4595	62.3377	59.1549	58.6667	60.8696	57.1429
46	54.3210	54.7619	53.8462	60.9756	52.6316	57.1429
47	45.7143	52.0548	44.7761	50.7042	40	42.4242
48	58.3333	61.3333	52.1739	65.7534	53.7313	61.7647
49	43.4783	58.3333	45.4545	57.1429	43.7500	46.1538
50	51.8519	59.5238	56.4103	58.5366	50	54.5455
51	53.1646	56.0976	55.2632	52.5000	51.3514	56
52	53.5211	64.8649	58.8235	63.8889	57.5758	62.6866
53	44.1558	50	48.6486	53.8462	47.2222	52.0548
54	57.5000	57.8313	59.7403	64.1975	53.3333	63.1579

55	55.6962	56.0976	55.2632	60	51.3514	58.6667
56	47.2222	45.3333	46.3768	54.7945	44.7761	50
57	47.7612	51.4286	46.8750	52.9412	51.6129	50.7937
58	33.3333	38.0952	35.0877	45.9016	25.4545	39.2857
59	41.7910	34.2857	37.5000	41.1765	35.4839	31.7460
60	28.5714	33.3333	33.3333	43.7500	34.4828	30.5085
61	25.4545	20.6897	30.7692	28.5714	28	27.4510
62	30.5085	29.0323	28.5714	36.6667	25.9259	29.0909
63	23.5294	22.2222	25	26.9231	34.7826	25.5319
64	16	18.8679	12.7660	19.6078	22.2222	17.3913
65	24	22.6415	21.2766	23.5294	26.6667	21.7391
66	27.1186	25.8065	21.4286	26.6667	25.9259	21.8182
67	19.6078	18.5185	16.6667	19.2308	21.7391	17.0213
68	16	15.0943	17.0213	15.6863	17.7778	8.6957
69	20.4082	23.0769	21.7391	24	27.2727	17.7778
70	18.5185	17.5439	15.6863	18.1818	20.4082	12
71	18.1818	20.6897	23.0769	25	28	15.6863
72	28.5714	30.3030	40	25	44.8276	30.5085
73	51.3514	41.5584	56.3380	40	55.0725	40
74	41.7910	40	50	35.2941	41.9355	38.0952
75	42.8571	41.0959	50.7463	47.8873	46.1538	42.4242
76	35.6164	34.2105	45.7143	32.4324	44.1176	28.9855
77	40	35.2941	48.3871	36.3636	46.6667	36.0656
78	32.3529	39.4366	43.0769	31.8841	44.4444	31.2500
79	32.8767	34.2105	37.1429	32.4324	35.2941	31.8841
80	30.3030	26.0870	41.2698	26.8657	32.7869	32.2581
81	32.8358	28.5714	43.7500	35.2941	38.7097	34.9206
82	31.2500	20.8955	36.0656	27.6923	33.8983	33.3333
83	21.0526	30	33.3333	24.1379	34.6154	26.4151
84	21.0526	16.6667	22.2222	17.2414	19.2308	18.8679
85	21.8750	23.8806	32.7869	27.6923	27.1186	30
86	26.2295	18.7500	34.4828	29.0323	32.1429	31.5789
87	31.4286	24.6575	35.8209	25.3521	33.8462	30.3030
88	24.6154	23.5294	29.0323	27.2727	30	22.9508
89	24.6154	23.5294	38.7097	27.2727	26.6667	29.5082

	37	38	39	40	41	42
1	4.7619	8.3333	4.8780	4.3478	4.3478	8.3333
2	4.3478	3.8462	4.4444	4	4	3.8462
3	0	0	0	0	0	0
4	0	0	0	0	0	0
5	0	0	0	0	0	0
6	12	10.7143	12.2449	14.8148	11.1111	14.2857
7	0	0	0	0	0	0
8	14.2857	16.1290	18.1818	23.3333	16.6667	22.5806
9	46.1538	48.2759	50.9804	46.4286	39.2857	37.9310
10	20.4082	32.7273	33.3333	33.9623	30.1887	25.4545
11	46.6667	42.4242	40.6780	46.8750	43.7500	42.4242
12	54.8387	55.8824	45.9016	51.5152	48.4848	55.8824
13	52.4590	47.7612	50	49.2308	49.2308	47.7612
14	45.8333	44.4444	46.8085	46.1538	42.3077	51.8519
15	62.9630	56.6667	64.1509	58.6207	55.1724	50
16	56.6667	57.5758	54.2373	59.3750	59.3750	60.6061
17	60.7143	61.2903	61.8182	60	63.3333	51.6129
18	60	63.6364	61.0169	65.6250	65.6250	69.6970
19	48.2759	59.3750	52.6316	54.8387	54.8387	59.3750
20	55.7377	65.6716	53.3333	55.3846	58.4615	56.7164
21	51.8519	63.3333	56.6038	58.6207	48.2759	56.6667
22	45.9016	47.7612	43.3333	49.2308	46.1538	50.7463

23	67.7419	76.4706	62.2951	66.6667	57.5758	55.8824
24	48.2759	53.1250	52.6316	58.0645	48.3871	53.1250
25	54.5455	59.0164	48.1481	47.4576	40.6780	39.3443
26	60.7143	67.7419	58.1818	56.6667	53.3333	58.0645
27	65.6250	68.5714	63.4921	61.7647	55.8824	57.1429
28	66.6667	69.5652	64.5161	59.7015	53.7313	43.4783
29	66.6667	63.7681	58.0645	62.6866	56.7164	55.0725
30	65.5738	65.6716	63.3333	70.7692	58.4615	59.7015
31	71.8750	71.4286	53.9683	61.7647	55.8824	62.8571
32	65.6716	71.2329	63.6364	64.7887	61.9718	63.0137
33	75.4098	80.5970	66.6667	67.6923	55.3846	59.7015
34	73.8462	78.8732	65.6250	69.5652	63.7681	70.4225
35	77.9661	73.8462	65.5172	60.3175	60.3175	61.5385
36	80	78.7879	71.1864	65.6250	62.5000	66.6667
37	100	80	75.4717	68.9655	58.6207	63.3333
38	80	100	81.3559	78.1250	62.5000	69.6970
39	75.4717	81.3559	100	80.7018	66.6667	64.4068
40	68.9655	78.1250	80.7018	100	67.7419	68.7500
41	58.6207	62.5000	66.6667	67.7419	100	68.7500
42	63.3333	69.6970	64.4068	68.7500	68.7500	100
43	65.4545	75.4098	66.6667	71.1864	61.0169	72.1311
44	67.6471	67.5676	59.7015	66.6667	55.5556	70.2703
45	62.5000	60	57.1429	55.8824	61.7647	65.7143
46	53.5211	62.3377	54.2857	56	53.3333	57.1429
47	43.3333	51.5152	44.0678	43.7500	40.6250	48.4848
48	54.8387	64.7059	55.7377	54.5455	51.5152	58.8235
49	44.0678	61.5385	51.7241	53.9683	50.7937	58.4615
50	53.5211	62.3377	57.1429	56	50.6667	59.7403
51	49.2754	58.6667	50	52.0548	43.8356	50.6667
52	59.0164	71.6418	66.6667	61.5385	55.3846	59.7015
53	47.7612	54.7945	45.4545	45.0704	39.4366	52.0548
54	54.2857	65.7895	55.0725	56.7568	56.7568	63.1579
55	55.0725	58.6667	44.1176	49.3151	49.3151	58.6667
56	45.1613	52.9412	42.6230	48.4848	36.3636	47.0588
57	52.6316	57.1429	50	55.7377	45.9016	47.6190
58	40	46.4286	40.8163	44.4444	29.6296	39.2857
59	35.0877	38.0952	28.5714	39.3443	29.5082	41.2698
60	33.9623	40.6780	34.6154	38.5965	28.0702	37.2881
61	26.6667	27.4510	27.2727	32.6531	24.4898	31.3725
62	32.6531	32.7273	29.1667	37.7358	22.6415	25.4545
63	29.2683	25.5319	30	26.6667	31.1111	25.5319
64	20	21.7391	20.5128	18.1818	18.1818	17.3913
65	25	26.0870	25.6410	27.2727	22.7273	21.7391
66	24.4898	25.4545	25	30.1887	22.6415	21.8182
67	19.5122	21.2766	20	26.6667	17.7778	17.0213
68	15	13.0435	15.3846	22.7273	13.6364	13.0435
69	25.6410	22.2222	21.0526	18.6047	18.6047	17.7778
70	18.1818	16	18.6047	20.8333	16.6667	16
71	17.7778	23.5294	22.7273	24.4898	16.3265	19.6078
72	30.1887	33.8983	30.7692	28.0702	24.5614	27.1186
73	43.7500	42.8571	38.0952	38.2353	32.3529	37.1429
74	42.1053	41.2698	32.1429	36.0656	29.5082	31.7460
75	43.3333	42.4242	40.6780	37.5000	28.1250	27.2727
76	31.7460	34.7826	32.2581	26.8657	29.8507	23.1884
77	43.6364	45.9016	40.7407	37.2881	27.1186	29.5082
78	34.4828	40.6250	38.5965	32.2581	25.8065	25
79	31.7460	31.8841	32.2581	26.8657	26.8657	26.0870
80	35.7143	35.4839	36.3636	33.3333	23.3333	22.5806
81	38.5965	38.0952	35.7143	29.5082	29.5082	25.3968
82	37.0370	30	33.9623	27.5862	24.1379	16.6667

83	29.7872	30.1887	34.7826	27.4510	19.6078	18.8679
84	12.7660	18.8679	13.0435	11.7647	7.8431	3.7736
85	25.9259	30	26.4151	24.1379	17.2414	16.6667
86	27.4510	24.5614	20	14.5455	29.0909	17.5439
87	33.3333	33.3333	33.8983	28.1250	21.8750	24.2424
88	21.8182	26.2295	25.9259	20.3390	16.9492	9.8361
89	29.0909	32.7869	33.3333	27.1186	20.3390	13.1148
	43	44	45	46	47	48
1	9.3023	7.1429	3.8462	6.7797	8.3333	8
2	4.2553	3.3333	3.5714	3.1746	3.8462	3.7037
3	4.2553	3.3333	3.5714	3.1746	3.8462	0
4	0	0	0	0	0	0
5	4.4444	3.4483	3.7037	3.2787	4	0
6	11.7647	12.5000	13.3333	11.9403	7.1429	10.3448
7	5	3.7736	4.0816	7.1429	4.4444	0
8	10.5263	25.7143	24.2424	21.9178	9.6774	12.5000
9	33.9623	39.3939	41.9355	31.8841	31.0345	33.3333
10	28	25.3968	27.1186	30.3030	25.4545	24.5614
11	49.1803	45.9459	45.7143	44.1558	45.4545	44.1176
12	50.7937	55.2632	52.7778	50.6329	50	54.2857
13	41.9355	45.3333	42.2535	48.7179	41.7910	40.5797
14	44.8980	41.9355	44.8276	40	40.7407	46.4286
15	54.5455	50	59.3750	47.8873	46.6667	54.8387
16	59.0164	62.1622	54.2857	46.7532	48.4848	64.7059
17	52.6316	54.2857	54.5455	41.0959	41.9355	56.2500
18	55.7377	72.9730	57.1429	46.7532	51.5152	58.8235
19	61.0169	50	55.8824	48	50	51.5152
20	54.8387	50.6667	56.3380	51.2821	53.7313	60.8696
21	58.1818	50	50	45.0704	46.6667	54.8387
22	41.9355	53.3333	47.8873	41.0256	38.8060	46.3768
23	63.4921	65.7895	63.8889	60.7595	50	65.7143
24	47.4576	50	55.8824	45.3333	43.7500	51.5152
25	46.4286	49.2754	40	38.8889	36.0656	47.6190
26	59.6491	57.1429	54.5455	43.8356	48.3871	59.3750
27	52.3077	64.1026	62.1622	54.3210	48.5714	61.1111
28	46.8750	54.5455	52.0548	52.5000	40.5797	47.8873
29	56.2500	62.3377	57.5342	52.5000	43.4783	47.8873
30	61.2903	69.3333	59.1549	53.8462	47.7612	60.8696
31	61.5385	66.6667	59.4595	54.3210	45.7143	58.3333
32	64.7059	59.2593	62.3377	54.7619	52.0548	61.3333
33	58.0645	66.6667	59.1549	53.8462	44.7761	52.1739
34	69.6970	73.4177	58.6667	60.9756	50.7042	65.7534
35	60	60.2740	60.8696	52.6316	40	53.7313
36	62.2951	64.8649	57.1429	57.1429	42.4242	61.7647
37	65.4545	67.6471	62.5000	53.5211	43.3333	54.8387
38	75.4098	67.5676	60	62.3377	51.5152	64.7059
39	66.6667	59.7015	57.1429	54.2857	44.0678	55.7377
40	71.1864	66.6667	55.8824	56	43.7500	54.5455
41	61.0169	55.5556	61.7647	53.3333	40.6250	51.5152
42	72.1311	70.2703	65.7143	57.1429	48.4848	58.8235
43	100	72.4638	64.6154	66.6667	65.5738	63.4921
44	72.4638	100	71.7949	68.2353	56.7568	60.5263
45	64.6154	71.7949	100	71.6049	62.8571	63.8889
46	66.6667	68.2353	71.6049	100	64.9351	58.2278
47	65.5738	56.7568	62.8571	64.9351	100	73.5294
48	63.4921	60.5263	63.8889	58.2278	73.5294	100
49	56.6667	57.5342	60.8696	57.8947	58.4615	65.6716
50	66.6667	56.4706	66.6667	72.7273	75.3247	65.8228

51	60	57.8313	58.2278	67.4419	72	67.5325
52	64.5161	58.6667	70.4225	69.2308	68.6567	66.6667
53	58.8235	64.1975	62.3377	66.6667	73.9726	66.6667
54	64.7887	64.2857	62.5000	68.9655	60.5263	71.7949
55	60	69.8795	63.2911	62.7907	50.6667	54.5455
56	50.7937	63.1579	50	50.6329	52.9412	60
57	58.6207	53.5211	53.7313	54.0541	50.7937	61.5385
58	47.0588	40.6250	26.6667	35.8209	42.8571	44.8276
59	48.2759	50.7042	41.7910	48.6486	44.4444	36.9231
60	40.7407	41.7910	31.7460	48.5714	33.8983	29.5082
61	34.7826	33.8983	25.4545	32.2581	23.5294	15.0943
62	36	38.0952	23.7288	33.3333	43.6364	28.0702
63	33.3333	25.4545	27.4510	20.6897	25.5319	20.4082
64	19.5122	11.1111	12	14.0351	13.0435	12.5000
65	24.3902	22.2222	20	17.5439	13.0435	16.6667
66	28	19.0476	20.3390	21.2121	18.1818	17.5439
67	23.8095	14.5455	15.6863	17.2414	17.0213	12.2449
68	19.5122	14.8148	12	14.0351	8.6957	4.1667
69	15	15.0943	12.2449	10.7143	8.8889	12.7660
70	17.7778	13.7931	11.1111	9.8361	8	7.6923
71	21.7391	16.9492	14.5455	19.3548	11.7647	15.0943
72	25.9259	29.8507	28.5714	25.7143	23.7288	22.9508
73	33.8462	43.5897	48.6486	39.5062	40	36.1111
74	34.4828	42.2535	35.8209	45.9459	38.0952	30.7692
75	29.5082	37.8378	28.5714	41.5584	39.3939	35.2941
76	21.8750	25.9740	30.1370	35	31.8841	30.9859
77	35.7143	34.7826	36.9231	36.1111	39.3443	31.7460
78	30.5085	30.5556	35.2941	37.3333	31.2500	30.3030
79	25	31.1688	24.6575	30	26.0870	25.3521
80	24.5614	31.4286	27.2727	30.1370	19.3548	25
81	27.5862	33.8028	35.8209	35.1351	38.0952	33.8462
82	21.8182	29.4118	28.1250	30.9859	30	19.3548
83	33.3333	26.2295	35.0877	31.2500	30.1887	21.8182
84	12.5000	16.3934	17.5439	25	18.8679	14.5455
85	25.4545	32.3529	28.1250	42.2535	26.6667	29.0323
86	19.2308	27.6923	36.0656	35.2941	24.5614	20.3390
87	29.5082	29.7297	34.2857	38.9610	30.3030	26.4706
88	21.4286	23.1884	27.6923	30.5556	32.7869	22.2222
89	21.4286	26.0870	24.6154	33.3333	29.5082	28.5714

	49	50	51	52	53	54
1	4.2553	6.7797	7.0175	4.0816	7.2727	6.8966
2	3.9216	3.1746	3.2787	3.7736	3.3898	3.2258
3	3.9216	3.1746	3.2787	3.7736	3.3898	3.2258
4	0	0	0	0	0	0
5	4.0816	3.2787	3.3898	3.9216	3.5088	3.3333
6	7.2727	11.9403	9.2308	10.5263	6.3492	12.1212
7	9.0909	7.1429	3.7037	4.3478	7.6923	7.2727
8	19.6721	13.6986	14.0845	19.0476	23.1884	19.4444
9	35.0877	34.7826	32.8358	40.6780	33.8462	35.2941
10	25.9259	27.2727	18.7500	32.1429	25.8065	24.6154
11	30.7692	46.7532	40	47.7612	41.0959	39.4737
12	47.7612	55.6962	54.5455	49.2754	53.3333	51.2821
13	39.3939	53.8462	47.3684	50	51.3514	46.7532
14	37.7358	46.1538	38.0952	40	42.6230	34.3750
15	44.0678	50.7042	46.3768	55.7377	47.7612	42.8571
16	49.2308	54.5455	53.3333	53.7313	52.0548	55.2632
17	52.4590	49.3151	42.2535	50.7937	43.4783	47.2222
18	55.3846	51.9481	48	56.7164	54.7945	57.8947

19	44.4444	53.3333	46.5753	49.2308	45.0704	48.6486
20	45.4545	56.4103	55.2632	61.7647	51.3514	57.1429
21	47.4576	50.7042	43.4783	52.4590	44.7761	45.7143
22	39.3939	43.5897	42.1053	38.2353	37.8378	41.5584
23	50.7463	55.6962	51.9481	57.9710	50.6667	58.9744
24	44.4444	48	41.0959	52.3077	47.8873	40.5405
25	33.3333	41.6667	42.8571	45.1613	38.2353	42.2535
26	52.4590	57.5342	39.4366	50.7937	40.5797	50
27	46.3768	54.3210	58.2278	59.1549	54.5455	57.5000
28	44.1176	52.5000	56.4103	57.1429	44.7368	53.1646
29	44.1176	52.5000	46.1538	54.2857	47.3684	53.1646
30	45.4545	51.2821	52.6316	50	48.6486	54.5455
31	43.4783	51.8519	53.1646	53.5211	44.1558	57.5000
32	58.3333	59.5238	56.0976	64.8649	50	57.8313
33	45.4545	56.4103	55.2632	58.8235	48.6486	59.7403
34	57.1429	58.5366	52.5000	63.8889	53.8462	64.1975
35	43.7500	50	51.3514	57.5758	47.2222	53.3333
36	46.1538	54.5455	56	62.6866	52.0548	63.1579
37	44.0678	53.5211	49.2754	59.0164	47.7612	54.2857
38	61.5385	62.3377	58.6667	71.6418	54.7945	65.7895
39	51.7241	57.1429	50	66.6667	45.4545	55.0725
40	53.9683	56	52.0548	61.5385	45.0704	56.7568
41	50.7937	50.6667	43.8356	55.3846	39.4366	56.7568
42	58.4615	59.7403	50.6667	59.7015	52.0548	63.1579
43	56.6667	66.6667	60	64.5161	58.8235	64.7887
44	57.5342	56.4706	57.8313	58.6667	64.1975	64.2857
45	60.8696	66.6667	58.2278	70.4225	62.3377	62.5000
46	57.8947	72.7273	67.4419	69.2308	66.6667	68.9655
47	58.4615	75.3247	72	68.6567	73.9726	60.5263
48	65.6716	65.8228	67.5325	66.6667	66.6667	71.7949
49	100	60.5263	48.6486	63.6364	61.1111	61.3333
50	60.5263	100	72.0930	76.9231	69.0476	75.8621
51	48.6486	72.0930	100	76.3158	73.1707	75.2941
52	63.6364	76.9231	76.3158	100	72.9730	75.3247
53	61.1111	69.0476	73.1707	72.9730	100	72.2892
54	61.3333	75.8621	75.2941	75.3247	72.2892	100
55	51.3514	60.4651	69.0476	68.4211	65.8537	75.2941
56	53.7313	53.1646	67.5325	63.7681	69.3333	64.1026
57	51.6129	56.7568	66.6667	71.8750	54.2857	60.2740
58	36.3636	50.7463	52.3077	49.1228	47.6190	54.5455
59	38.7097	51.3514	52.7778	50	54.2857	57.5342
60	37.9310	42.8571	41.1765	50	48.4848	49.2754
61	20	32.2581	33.3333	30.7692	34.4828	39.3443
62	29.6296	42.4242	40.6250	35.7143	35.4839	33.8462
63	17.3913	31.0345	25	29.1667	25.9259	28.0702
64	13.3333	24.5614	14.5455	21.2766	15.0943	17.8571
65	17.7778	24.5614	21.8182	17.0213	11.3208	21.4286
66	22.2222	33.3333	21.8750	25	16.1290	21.5385
67	17.3913	27.5862	17.8571	20.8333	14.8148	21.0526
68	13.3333	28.0702	18.1818	17.0213	11.3208	17.8571
69	13.6364	28.5714	22.2222	21.7391	11.5385	18.1818
70	16.3265	26.2295	16.9492	19.6078	14.0351	16.6667
71	24	29.0323	23.3333	26.9231	20.6897	22.9508
72	20.6897	31.4286	35.2941	33.3333	30.3030	31.8841
73	31.8841	46.9136	45.5696	47.8873	41.5584	40
74	41.9355	43.2432	47.2222	40.6250	40	41.0959
75	36.9231	38.9610	45.3333	41.7910	38.3562	36.8421
76	29.4118	35	38.4615	34.2857	26.3158	30.3797
77	40	41.6667	42.8571	48.3871	41.1765	39.4366
78	38.0952	34.6667	41.0959	43.0769	33.8028	37.8378

79	26.4706	27.5000	30.7692	31.4286	26.3158	30.3797
80	29.5082	27.3973	30.9859	34.9206	31.8841	30.5556
81	32.2581	37.8378	41.6667	46.8750	37.1429	35.6164
82	16.9492	30.9859	28.9855	36.0656	35.8209	25.7143
83	19.2308	34.3750	32.2581	40.7407	36.6667	28.5714
84	19.2308	21.8750	22.5806	25.9259	23.3333	25.3968
85	40.6780	36.6197	34.7826	39.3443	38.8060	37.1429
86	25	35.2941	33.3333	37.9310	37.5000	38.8060
87	30.7692	41.5584	37.3333	44.7761	43.8356	36.8421
88	20	33.3333	34.2857	41.9355	32.3529	28.1690
89	36.6667	30.5556	34.2857	38.7097	32.3529	33.8028

	55	56	57	58	59	60
1	7.0175	8	4.4444	10.5263	4.4444	0
2	3.2787	3.7037	4.0816	4.7619	4.0816	0
3	3.2787	0	0	0	0	0
4	0	0	0	0	0	0
5	3.3898	0	0	0	0	0
6	9.2308	3.4483	7.5472	0	0	0
7	3.7037	0	0	0	0	0
8	16.9014	15.6250	6.7797	3.8462	16.9492	21.8182
9	29.8507	26.6667	25.4545	25	21.8182	27.4510
10	15.6250	14.0351	15.3846	4.4444	19.2308	33.3333
11	37.3333	44.1176	44.4444	39.2857	44.4444	44.0678
12	51.9481	51.4286	46.1538	44.8276	40	36.0656
13	42.1053	46.3768	40.6250	35.0877	37.5000	36.6667
14	31.7460	39.2857	31.3725	31.8182	19.6078	17.0213
15	40.5797	45.1613	45.6140	36	31.5789	30.1887
16	53.3333	52.9412	50.7937	46.4286	38.0952	30.5085
17	36.6197	40.6250	40.6780	34.6154	30.5085	29.0909
18	53.3333	52.9412	44.4444	42.8571	34.9206	33.8983
19	43.8356	39.3939	42.6230	33.3333	29.5082	24.5614
20	47.3684	43.4783	50	35.0877	31.2500	33.3333
21	43.4783	38.7097	42.1053	32	24.5614	30.1887
22	44.7368	37.6812	31.2500	24.5614	25	20
23	59.7403	45.7143	52.3077	37.9310	33.8462	32.7869
24	35.6164	42.4242	42.6230	29.6296	32.7869	35.0877
25	45.7143	50.7937	44.8276	35.2941	27.5862	25.9259
26	47.8873	34.3750	37.2881	26.9231	20.3390	18.1818
27	48.1013	50	47.7612	33.3333	35.8209	38.0952
28	48.7179	45.0704	45.4545	30.5085	30.3030	35.4839
29	48.7179	36.6197	39.3939	23.7288	36.3636	38.7097
30	50	46.3768	43.7500	31.5789	37.5000	30
31	55.6962	47.2222	47.7612	33.3333	41.7910	28.5714
32	56.0976	45.3333	51.4286	38.0952	34.2857	33.3333
33	55.2632	46.3768	46.8750	35.0877	37.5000	33.3333
34	60	54.7945	52.9412	45.9016	41.1765	43.7500
35	51.3514	44.7761	51.6129	25.4545	35.4839	34.4828
36	58.6667	50	50.7937	39.2857	31.7460	30.5085
37	55.0725	45.1613	52.6316	40	35.0877	33.9623
38	58.6667	52.9412	57.1429	46.4286	38.0952	40.6780
39	44.1176	42.6230	50	40.8163	28.5714	34.6154
40	49.3151	48.4848	55.7377	44.4444	39.3443	38.5965
41	49.3151	36.3636	45.9016	29.6296	29.5082	28.0702
42	58.6667	47.0588	47.6190	39.2857	41.2698	37.2881
43	60	50.7937	58.6207	47.0588	48.2759	40.7407
44	69.8795	63.1579	53.5211	40.6250	50.7042	41.7910
45	63.2911	50	53.7313	26.6667	41.7910	31.7460
46	62.7907	50.6329	54.0541	35.8209	48.6486	48.5714

47	50.6667	52.9412	50.7937	42.8571	44.4444	33.8983
48	54.5455	60	61.5385	44.8276	36.9231	29.5082
49	51.3514	53.7313	51.6129	36.3636	38.7097	37.9310
50	60.4651	53.1646	56.7568	50.7463	51.3514	42.8571
51	69.0476	67.5325	66.6667	52.3077	52.7778	41.1765
52	68.4211	63.7681	71.8750	49.1228	50	50
53	65.8537	69.3333	54.2857	47.6190	54.2857	48.4848
54	75.2941	64.1026	60.2740	54.5455	57.5342	49.2754
55	100	70.1299	69.4444	49.2308	58.3333	44.1176
56	70.1299	100	73.8462	65.5172	61.5385	49.1803
57	69.4444	73.8462	100	56.6038	60	46.4286
58	49.2308	65.5172	56.6038	100	64.1509	61.2245
59	58.3333	61.5385	60	64.1509	100	71.4286
60	44.1176	49.1803	46.4286	61.2245	71.4286	100
61	36.6667	41.5094	29.1667	48.7805	54.1667	59.0909
62	31.2500	42.1053	38.4615	57.7778	46.1538	50
63	25	24.4898	31.8182	43.2432	36.3636	50
64	14.5455	20.8333	18.6047	38.8889	27.9070	46.1538
65	18.1818	20.8333	18.6047	38.8889	32.5581	41.0256
66	15.6250	24.5614	19.2308	31.1111	30.7692	37.5000
67	17.8571	24.4898	22.7273	37.8378	36.3636	50
68	14.5455	20.8333	18.6047	33.3333	32.5581	41.0256
69	14.8148	21.2766	19.0476	40	28.5714	42.1053
70	13.5593	23.0769	21.2766	35	29.7872	41.8605
71	16.6667	26.4151	25	34.1463	37.5000	59.0909
72	26.4706	29.5082	28.5714	28.5714	39.2857	50
73	40.5063	38.8889	35.8209	23.3333	38.8060	34.9206
74	44.4444	49.2308	46.6667	37.7358	43.3333	39.2857
75	40	47.0588	41.2698	32.1429	34.9206	40.6780
76	28.2051	28.1690	33.3333	16.9492	33.3333	32.2581
77	42.8571	50.7937	51.7241	31.3725	37.9310	33.3333
78	41.0959	36.3636	42.6230	22.2222	32.7869	31.5789
79	35.8974	36.6197	36.3636	27.1186	39.3939	35.4839
80	33.8028	37.5000	47.4576	23.0769	37.2881	29.0909
81	36.1111	40	43.3333	26.4151	43.3333	42.8571
82	28.9855	35.4839	31.5789	24	42.1053	37.7358
83	25.8065	21.8182	28	18.6047	32	34.7826
84	16.1290	14.5455	16	13.9535	24	21.7391
85	37.6812	35.4839	38.5965	20	35.0877	33.9623
86	33.3333	30.5085	29.6296	21.2766	40.7407	40
87	37.3333	41.1765	41.2698	25	47.6190	44.0678
88	22.8571	25.3968	27.5862	23.5294	37.9310	40.7407
89	28.5714	34.9206	37.9310	23.5294	27.5862	29.6296

	61	62	63	64	65	66
1	0	5.4054	6.8966	0	0	0
2	0	4.8780	6.0606	0	0	0
3	0	0	0	0	0	0
4	0	0	0	0	0	0
5	0	0	0	0	0	0
6	0	0	0	0	0	0
7	0	0	0	0	0	0
8	21.2766	11.7647	4.6512	4.7619	4.7619	15.6863
9	27.9070	34.0426	30.7692	21.0526	26.3158	29.7872
10	20	18.1818	16.6667	11.4286	17.1429	27.2727
11	35.2941	40	29.7872	17.3913	17.3913	29.0909
12	26.4151	42.1053	32.6531	20.8333	25	31.5789
13	30.7692	35.7143	25	21.2766	21.2766	32.1429
14	25.6410	37.2093	34.2857	29.4118	29.4118	37.2093

15	26.6667	32.6531	34.1463	25	25	36.7347
16	23.5294	36.3636	29.7872	21.7391	26.0870	29.0909
17	25.5319	31.3725	32.5581	23.8095	28.5714	31.3725
18	31.3725	40	29.7872	21.7391	26.0870	25.4545
19	28.5714	30.1887	31.1111	18.1818	22.7273	26.4151
20	26.9231	25	29.1667	17.0213	17.0213	21.4286
21	26.6667	24.4898	34.1463	20	20	24.4898
22	26.9231	21.4286	20.8333	12.7660	25.5319	25
23	26.4151	31.5789	24.4898	16.6667	25	28.0702
24	28.5714	30.1887	31.1111	18.1818	22.7273	26.4151
25	34.7826	28	28.5714	14.6341	19.5122	24
26	17.0213	19.6078	23.2558	14.2857	19.0476	23.5294
27	32.7273	27.1186	31.3725	16	24	23.7288
28	29.6296	34.4828	28	16.3265	24.4898	27.5862
29	37.0370	27.5862	28	16.3265	28.5714	31.0345
30	30.7692	28.5714	29.1667	17.0213	29.7872	28.5714
31	25.4545	30.5085	23.5294	16	24	27.1186
32	20.6897	29.0323	22.2222	18.8679	22.6415	25.8065
33	30.7692	28.5714	25	12.7660	21.2766	21.4286
34	28.5714	36.6667	26.9231	19.6078	23.5294	26.6667
35	28	25.9259	34.7826	22.2222	26.6667	25.9259
36	27.4510	29.0909	25.5319	17.3913	21.7391	21.8182
37	26.6667	32.6531	29.2683	20	25	24.4898
38	27.4510	32.7273	25.5319	21.7391	26.0870	25.4545
39	27.2727	29.1667	30	20.5128	25.6410	25
40	32.6531	37.7358	26.6667	18.1818	27.2727	30.1887
41	24.4898	22.6415	31.1111	18.1818	22.7273	22.6415
42	31.3725	25.4545	25.5319	17.3913	21.7391	21.8182
43	34.7826	36	33.3333	19.5122	24.3902	28
44	33.8983	38.0952	25.4545	11.1111	22.2222	19.0476
45	25.4545	23.7288	27.4510	12	20	20.3390
46	32.2581	33.3333	20.6897	14.0351	17.5439	21.2121
47	23.5294	43.6364	25.5319	13.0435	13.0435	18.1818
48	15.0943	28.0702	20.4082	12.5000	16.6667	17.5439
49	20	29.6296	17.3913	13.3333	17.7778	22.2222
50	32.2581	42.4242	31.0345	24.5614	24.5614	33.3333
51	33.3333	40.6250	25	14.5455	21.8182	21.8750
52	30.7692	35.7143	29.1667	21.2766	17.0213	25
53	34.4828	35.4839	25.9259	15.0943	11.3208	16.1290
54	39.3443	33.8462	28.0702	17.8571	21.4286	21.5385
55	36.6667	31.2500	25	14.5455	18.1818	15.6250
56	41.5094	42.1053	24.4898	20.8333	20.8333	24.5614
57	29.1667	38.4615	31.8182	18.6047	18.6047	19.2308
58	48.7805	57.7778	43.2432	38.8889	38.8889	31.1111
59	54.1667	46.1538	36.3636	27.9070	32.5581	30.7692
60	59.0909	50	50	46.1538	41.0256	37.5000
61	100	55	56.2500	51.6129	51.6129	50
62	55	100	61.1111	51.4286	51.4286	45.4545
63	56.2500	61.1111	100	66.6667	51.8519	44.4444
64	51.6129	51.4286	66.6667	100	69.2308	62.8571
65	51.6129	51.4286	51.8519	69.2308	100	62.8571
66	50	45.4545	44.4444	62.8571	62.8571	100
67	50	50	57.1429	81.4815	74.0741	72.2222
68	58.0645	51.4286	51.8519	61.5385	69.2308	68.5714
69	46.6667	47.0588	53.8462	72	80	64.7059
70	45.7143	46.1538	64.5161	66.6667	53.3333	66.6667
71	44.4444	40	56.2500	64.5161	51.6129	65
72	50	50	50	51.2821	51.2821	50
73	43.6364	33.8983	27.4510	16	24	33.8983
74	33.3333	30.7692	18.1818	13.9535	18.6047	23.0769

75	35.2941	36.3636	21.2766	21.7391	26.0870	29.0909
76	25.9259	27.5862	20	20.4082	24.4898	27.5862
77	34.7826	24	23.8095	19.5122	19.5122	20
78	32.6531	15.0943	17.7778	18.1818	22.7273	18.8679
79	37.0370	20.6897	20	20.4082	24.4898	27.5862
80	29.7872	15.6863	13.9535	19.0476	19.0476	19.6078
81	33.3333	23.0769	22.7273	23.2558	27.9070	30.7692
82	35.5556	24.4898	24.3902	20	20	20.4082
83	26.3158	14.2857	29.4118	18.1818	18.1818	14.2857
84	15.7895	19.0476	17.6471	12.1212	12.1212	9.5238
85	26.6667	12.2449	9.7561	10	10	8.1633
86	33.3333	21.7391	26.3158	21.6216	27.0270	17.3913
87	35.2941	18.1818	17.0213	21.7391	21.7391	21.8182
88	26.0870	28	28.5714	24.3902	24.3902	28
89	21.7391	20	9.5238	14.6341	14.6341	12

	67	68	69	70	71	72
1	0	0	0	0	0	0
2	0	0	0	0	0	0
3	0	0	0	0	0	0
4	0	0	0	0	0	0
5	0	0	0	0	0	0
6	0	0	0	0	0	0
7	0	0	0	0	0	0
8	9.3023	9.5238	4.8780	4.3478	17.0213	29.0909
9	25.6410	21.0526	27.0270	19.0476	27.9070	47.0588
10	16.6667	11.4286	11.7647	5.1282	25	41.6667
11	21.2766	17.3913	17.7778	16	19.6078	33.8983
12	24.4898	16.6667	25.5319	19.2308	22.6415	29.5082
13	25	17.0213	21.7391	19.6078	19.2308	30
14	28.5714	23.5294	30.3030	26.3158	25.6410	21.2766
15	29.2683	20	25.6410	22.7273	26.6667	30.1887
16	21.2766	17.3913	26.6667	20	19.6078	27.1186
17	23.2558	19.0476	29.2683	21.7391	25.5319	32.7273
18	21.2766	13.0435	22.2222	16	15.6863	30.5085
19	22.2222	13.6364	13.9535	12.5000	16.3265	24.5614
20	16.6667	12.7660	21.7391	15.6863	23.0769	30
21	19.5122	10	15.3846	13.6364	22.2222	30.1887
22	16.6667	17.0213	21.7391	15.6863	15.3846	26.6667
23	20.4082	16.6667	21.2766	15.3846	22.6415	26.2295
24	17.7778	18.1818	23.2558	20.8333	24.4898	28.0702
25	14.2857	14.6341	20	17.7778	21.7391	25.9259
26	13.9535	9.5238	19.5122	17.3913	17.0213	21.8182
27	15.6863	16	24.4898	18.5185	25.4545	41.2698
28	20	16.3265	25	18.8679	25.9259	35.4839
29	24	20.4082	25	18.8679	25.9259	35.4839
30	20.8333	21.2766	26.0870	19.6078	23.0769	33.3333
31	19.6078	16	20.4082	18.5185	18.1818	28.5714
32	18.5185	15.0943	23.0769	17.5439	20.6897	30.3030
33	16.6667	17.0213	21.7391	15.6863	23.0769	40
34	19.2308	15.6863	24	18.1818	25	25
35	21.7391	17.7778	27.2727	20.4082	28	44.8276
36	17.0213	8.6957	17.7778	12	15.6863	30.5085
37	19.5122	15	25.6410	18.1818	17.7778	30.1887
38	21.2766	13.0435	22.2222	16	23.5294	33.8983
39	20	15.3846	21.0526	18.6047	22.7273	30.7692
40	26.6667	22.7273	18.6047	20.8333	24.4898	28.0702
41	17.7778	13.6364	18.6047	16.6667	16.3265	24.5614
42	17.0213	13.0435	17.7778	16	19.6078	27.1186

43	23.8095	19.5122	15	17.7778	21.7391	25.9259
44	14.5455	14.8148	15.0943	13.7931	16.9492	29.8507
45	15.6863	12	12.2449	11.1111	14.5455	28.5714
46	17.2414	14.0351	10.7143	9.8361	19.3548	25.7143
47	17.0213	8.6957	8.8889	8	11.7647	23.7288
48	12.2449	4.1667	12.7660	7.6923	15.0943	22.9508
49	17.3913	13.3333	13.6364	16.3265	24	20.6897
50	27.5862	28.0702	28.5714	26.2295	29.0323	31.4286
51	17.8571	18.1818	22.2222	16.9492	23.3333	35.2941
52	20.8333	17.0213	21.7391	19.6078	26.9231	33.3333
53	14.8148	11.3208	11.5385	14.0351	20.6897	30.3030
54	21.0526	17.8571	18.1818	16.6667	22.9508	31.8841
55	17.8571	14.5455	14.8148	13.5593	16.6667	26.4706
56	24.4898	20.8333	21.2766	23.0769	26.4151	29.5082
57	22.7273	18.6047	19.0476	21.2766	25	28.5714
58	37.8378	33.3333	40	35	34.1463	28.5714
59	36.3636	32.5581	28.5714	29.7872	37.5000	39.2857
60	50	41.0256	42.1053	41.8605	59.0909	50
61	50	58.0645	46.6667	45.7143	44.4444	50
62	50	51.4286	47.0588	46.1538	40	50
63	57.1429	51.8519	53.8462	64.5161	56.2500	50
64	81.4815	61.5385	72	66.6667	64.5161	51.2821
65	74.0741	69.2308	80	53.3333	51.6129	51.2821
66	72.2222	68.5714	64.7059	66.6667	65	50
67	100	74.0741	69.2308	64.5161	68.7500	50
68	74.0741	100	80	73.3333	70.9677	46.1538
69	69.2308	80	100	68.9655	66.6667	52.6316
70	64.5161	73.3333	68.9655	100	68.5714	41.8605
71	68.7500	70.9677	66.6667	68.5714	100	54.5455
72	50	46.1538	52.6316	41.8605	54.5455	100
73	23.5294	28	28.5714	22.2222	32.7273	57.1429
74	18.1818	23.2558	23.8095	21.2766	29.1667	39.2857
75	25.5319	26.0870	31.1111	24	35.2941	44.0678
76	24	24.4898	29.1667	18.8679	33.3333	61.2903
77	23.8095	19.5122	20	22.2222	21.7391	44.4444
78	22.2222	22.7273	23.2558	16.6667	24.4898	49.1228
79	28	24.4898	25	26.4151	22.2222	41.9355
80	23.2558	23.8095	19.5122	21.7391	21.2766	29.0909
81	27.2727	23.2558	33.3333	21.2766	33.3333	57.1429
82	24.3902	15	20.5128	18.1818	17.7778	45.2830
83	17.6471	18.1818	18.7500	16.2162	21.0526	43.4783
84	11.7647	12.1212	12.5000	16.2162	21.0526	39.1304
85	9.7561	10	10.2564	9.0909	17.7778	33.9623
86	21.0526	21.6216	27.7778	19.5122	23.8095	44
87	25.5319	17.3913	22.2222	20	23.5294	44.0678
88	28.5714	24.3902	30	22.2222	34.7826	51.8519
89	14.2857	14.6341	15	8.8889	17.3913	44.4444

	73	74	75	76	77	78
1	0	0	0	0	0	0
2	0	0	0	0	0	0
3	0	4.0816	0	0	0	4
4	0	0	0	0	0	0
5	0	4.2553	0	0	0	4.1667
6	3.3333	7.5472	3.5714	3.3898	3.9216	7.4074
7	0	4.7619	0	0	0	4.6512
8	30.3030	10.1695	12.9032	27.6923	7.0175	13.3333
9	48.3871	21.8182	31.0345	42.6230	26.4151	32.1429
10	40.6780	7.6923	18.1818	37.9310	16	22.6415

11	54.2857	34.9206	36.3636	40.5797	29.5082	21.8750
12	44.4444	43.0769	41.1765	39.4366	31.7460	27.2727
13	45.0704	46.8750	41.7910	40	35.4839	27.6923
14	37.9310	23.5294	29.6296	24.5614	20.4082	15.3846
15	46.8750	31.5789	36.6667	31.7460	32.7273	27.5862
16	42.8571	38.0952	36.3636	28.9855	26.2295	25
17	48.4848	37.2881	38.7097	36.9231	35.0877	33.3333
18	42.8571	34.9206	36.3636	23.1884	29.5082	21.8750
19	44.1176	26.2295	25	23.8806	37.2881	29.0323
20	53.5211	37.5000	41.7910	37.1429	41.9355	36.9231
21	43.7500	28.0702	33.3333	31.7460	40	34.4828
22	50.7042	37.5000	35.8209	34.2857	38.7097	33.8462
23	47.2222	36.9231	41.1765	33.8028	34.9206	36.3636
24	47.0588	29.5082	34.3750	32.8358	30.5085	25.8065
25	52.3077	41.3793	45.9016	34.3750	46.4286	33.8983
26	42.4242	33.8983	32.2581	27.6923	31.5789	30
27	62.1622	44.7761	51.4286	46.5753	49.2308	44.1176
28	52.0548	48.4848	52.1739	44.4444	40.6250	44.7761
29	60.2740	36.3636	46.3768	41.6667	40.6250	38.8060
30	45.0704	31.2500	38.8060	34.2857	29.0323	30.7692
31	51.3514	41.7910	42.8571	35.6164	40	32.3529
32	41.5584	40	41.0959	34.2105	35.2941	39.4366
33	56.3380	50	50.7463	45.7143	48.3871	43.0769
34	40	35.2941	47.8873	32.4324	36.3636	31.8841
35	55.0725	41.9355	46.1538	44.1176	46.6667	44.4444
36	40	38.0952	42.4242	28.9855	36.0656	31.2500
37	43.7500	42.1053	43.3333	31.7460	43.6364	34.4828
38	42.8571	41.2698	42.4242	34.7826	45.9016	40.6250
39	38.0952	32.1429	40.6780	32.2581	40.7407	38.5965
40	38.2353	36.0656	37.5000	26.8657	37.2881	32.2581
41	32.3529	29.5082	28.1250	29.8507	27.1186	25.8065
42	37.1429	31.7460	27.2727	23.1884	29.5082	25
43	33.8462	34.4828	29.5082	21.8750	35.7143	30.5085
44	43.5897	42.2535	37.8378	25.9740	34.7826	30.5556
45	48.6486	35.8209	28.5714	30.1370	36.9231	35.2941
46	39.5062	45.9459	41.5584	35	36.1111	37.3333
47	40	38.0952	39.3939	31.8841	39.3443	31.2500
48	36.1111	30.7692	35.2941	30.9859	31.7460	30.3030
49	31.8841	41.9355	36.9231	29.4118	40	38.0952
50	46.9136	43.2432	38.9610	35	41.6667	34.6667
51	45.5696	47.2222	45.3333	38.4615	42.8571	41.0959
52	47.8873	40.6250	41.7910	34.2857	48.3871	43.0769
53	41.5584	40	38.3562	26.3158	41.1765	33.8028
54	40	41.0959	36.8421	30.3797	39.4366	37.8378
55	40.5063	44.4444	40	28.2051	42.8571	41.0959
56	38.8889	49.2308	47.0588	28.1690	50.7937	36.3636
57	35.8209	46.6667	41.2698	33.3333	51.7241	42.6230
58	23.3333	37.7358	32.1429	16.9492	31.3725	22.2222
59	38.8060	43.3333	34.9206	33.3333	37.9310	32.7869
60	34.9206	39.2857	40.6780	32.2581	33.3333	31.5789
61	43.6364	33.3333	35.2941	25.9259	34.7826	32.6531
62	33.8983	30.7692	36.3636	27.5862	24	15.0943
63	27.4510	18.1818	21.2766	20	23.8095	17.7778
64	16	13.9535	21.7391	20.4082	19.5122	18.1818
65	24	18.6047	26.0870	24.4898	19.5122	22.7273
66	33.8983	23.0769	29.0909	27.5862	20	18.8679
67	23.5294	18.1818	25.5319	24	23.8095	22.2222
68	28	23.2558	26.0870	24.4898	19.5122	22.7273
69	28.5714	23.8095	31.1111	29.1667	20	23.2558
70	22.2222	21.2766	24	18.8679	22.2222	16.6667

71	32.7273	29.1667	35.2941	33.3333	21.7391	24.4898
72	57.1429	39.2857	44.0678	61.2903	44.4444	49.1228
73	100	50.7463	57.1429	63.0137	55.3846	52.9412
74	50.7463	100	73.0159	54.5455	58.6207	55.7377
75	57.1429	73.0159	100	66.6667	65.5738	65.6250
76	63.0137	54.5455	66.6667	100	56.2500	65.6716
77	55.3846	58.6207	65.5738	56.2500	100	77.9661
78	52.9412	55.7377	65.6250	65.6716	77.9661	100
79	49.3151	51.5152	66.6667	63.8889	56.2500	68.6567
80	36.3636	44.0678	48.3871	46.1538	52.6316	53.3333
81	59.7015	46.6667	63.4921	69.6970	65.5172	59.0164
82	50	42.1053	53.3333	47.6190	69.0909	55.1724
83	38.5965	32	37.7358	39.2857	50	50.9804
84	21.0526	28	30.1887	25	37.5000	35.2941
85	40.6250	49.1228	50	44.4444	58.1818	58.6207
86	39.3443	37.0370	42.1053	46.6667	50	50.9091
87	51.4286	44.4444	48.4848	52.1739	65.5738	62.5000
88	40	31.0345	39.3443	40.6250	46.4286	47.4576
89	36.9231	48.2759	52.4590	56.2500	60.7143	61.0169

	79	80	81	82	83	84
1	3.9216	0	0	0	0	0
2	3.6364	0	0	0	0	0
3	3.6364	0	0	0	5.1282	5.1282
4	-3.6364	0	0	0	0	0
5	0	0	0	0	5.4054	5.4054
6	3.3898	7.6923	3.7736	4	4.6512	4.6512
7	4.1667	0	0	0	6.2500	18.7500
8	18.4615	10.3448	20.3390	14.2857	12.2449	4.0816
9	32.7869	18.5185	36.3636	30.7692	31.1111	13.3333
10	20.6897	3.9216	30.7692	24.4898	23.8095	14.2857
11	37.6812	19.3548	34.9206	36.6667	33.9623	11.3208
12	33.8028	25	33.8462	32.2581	25.4545	7.2727
13	34.2857	28.5714	34.3750	39.3443	25.9259	7.4074
14	17.5439	20	19.6078	20.8333	19.5122	0
15	31.7460	28.5714	35.0877	37.0370	34.0426	12.7660
16	28.9855	22.5806	28.5714	26.6667	26.4151	7.5472
17	30.7692	27.5862	30.5085	32.1429	36.7347	8.1633
18	28.9855	25.8065	31.7460	30	22.6415	11.3208
19	23.8806	20	26.2295	27.5862	27.4510	7.8431
20	31.4286	28.5714	40.6250	36.0656	37.0370	18.5185
21	28.5714	21.4286	31.5789	29.6296	34.0426	12.7660
22	31.4286	19.0476	31.2500	29.5082	18.5185	11.1111
23	30.9859	31.2500	33.8462	25.8065	25.4545	18.1818
24	29.8507	26.6667	29.5082	31.0345	35.2941	7.8431
25	34.3750	31.5789	37.9310	36.3636	25	16.6667
26	27.6923	20.6897	27.1186	25	24.4898	16.3265
27	38.3562	36.3636	44.7761	40.6250	38.5965	21.0526
28	36.1111	36.9231	39.3939	38.0952	35.7143	21.4286
29	38.8889	33.8462	45.4545	41.2698	35.7143	14.2857
30	34.2857	28.5714	31.2500	26.2295	29.6296	11.1111
31	32.8767	30.3030	32.8358	31.2500	21.0526	21.0526
32	34.2105	26.0870	28.5714	20.8955	30	16.6667
33	37.1429	41.2698	43.7500	36.0656	33.3333	22.2222
34	32.4324	26.8657	35.2941	27.6923	24.1379	17.2414
35	35.2941	32.7869	38.7097	33.8983	34.6154	19.2308
36	31.8841	32.2581	34.9206	33.3333	26.4151	18.8679
37	31.7460	35.7143	38.5965	37.0370	29.7872	12.7660
38	31.8841	35.4839	38.0952	30	30.1887	18.8679

39	32.2581	36.3636	35.7143	33.9623	34.7826	13.0435
40	26.8657	33.3333	29.5082	27.5862	27.4510	11.7647
41	26.8657	23.3333	29.5082	24.1379	19.6078	7.8431
42	26.0870	22.5806	25.3968	16.6667	18.8679	3.7736
43	25	24.5614	27.5862	21.8182	33.3333	12.5000
44	31.1688	31.4286	33.8028	29.4118	26.2295	16.3934
45	24.6575	27.2727	35.8209	28.1250	35.0877	17.5439
46	30	30.1370	35.1351	30.9859	31.2500	25
47	26.0870	19.3548	38.0952	30	30.1887	18.8679
48	25.3521	25	33.8462	19.3548	21.8182	14.5455
49	26.4706	29.5082	32.2581	16.9492	19.2308	19.2308
50	27.5000	27.3973	37.8378	30.9859	34.3750	21.8750
51	30.7692	30.9859	41.6667	28.9855	32.2581	22.5806
52	31.4286	34.9206	46.8750	36.0656	40.7407	25.9259
53	26.3158	31.8841	37.1429	35.8209	36.6667	23.3333
54	30.3797	30.5556	35.6164	25.7143	28.5714	25.3968
55	35.8974	33.8028	36.1111	28.9855	25.8065	16.1290
56	36.6197	37.5000	40	35.4839	21.8182	14.5455
57	36.3636	47.4576	43.3333	31.5789	28	16
58	27.1186	23.0769	26.4151	24	18.6047	13.9535
59	39.3939	37.2881	43.3333	42.1053	32	24
60	35.4839	29.0909	42.8571	37.7358	34.7826	21.7391
61	37.0370	29.7872	33.3333	35.5556	26.3158	15.7895
62	20.6897	15.6863	23.0769	24.4898	14.2857	19.0476
63	20	13.9535	22.7273	24.3902	29.4118	17.6471
64	20.4082	19.0476	23.2558	20	18.1818	12.1212
65	24.4898	19.0476	27.9070	20	18.1818	12.1212
66	27.5862	19.6078	30.7692	20.4082	14.2857	9.5238
67	28	23.2558	27.2727	24.3902	17.6471	11.7647
68	24.4898	23.8095	23.2558	15	18.1818	12.1212
69	25	19.5122	33.3333	20.5128	18.7500	12.5000
70	26.4151	21.7391	21.2766	18.1818	16.2162	16.2162
71	22.2222	21.2766	33.3333	17.7778	21.0526	21.0526
72	41.9355	29.0909	57.1429	45.2830	43.4783	39.1304
73	49.3151	36.3636	59.7015	50	38.5965	21.0526
74	51.5152	44.0678	46.6667	42.1053	32	28
75	66.6667	48.3871	63.4921	53.3333	37.7358	30.1887
76	63.8889	46.1538	69.6970	47.6190	39.2857	25
77	56.2500	52.6316	65.5172	69.0909	50	37.5000
78	68.6567	53.3333	59.0164	55.1724	50.9804	35.2941
79	100	52.3077	57.5758	53.9683	35.7143	17.8571
80	52.3077	100	54.2373	46.4286	40.8163	16.3265
81	57.5758	54.2373	100	66.6667	48	32
82	53.9683	46.4286	66.6667	100	72.3404	46.8085
83	35.7143	40.8163	48	72.3404	100	50
84	17.8571	16.3265	32	46.8085	50	100
85	41.2698	46.4286	49.1228	55.5556	51.0638	51.0638
86	36.6667	41.5094	59.2593	58.8235	50	54.5455
87	52.1739	58.0645	63.4921	76.6667	60.3774	41.5094
88	34.3750	42.1053	55.1724	65.4545	62.5000	62.5000
89	40.6250	49.1228	62.0690	50.9091	41.6667	54.1667

	85	86	87	88	89
1	0	0	0	0	0
2	0	0	0	0	0
3	4.3478	4.6512	3.8462	4.2553	4.2553
4	0	0	0	0	0
5	4.5455	4.8780	4	4.4444	4.4444
6	8	8.5106	7.1429	3.9216	7.8431

7	15.3846	11.1111	8.8889	5	15
8	14.2857	7.5472	12.9032	10.5263	10.5263
9	19.2308	16.3265	24.1379	26.4151	22.6415
10	16.3265	17.3913	25.4545	32	20
11	23.3333	24.5614	36.3636	29.5082	19.6721
12	19.3548	23.7288	29.4118	25.3968	19.0476
13	26.2295	27.5862	38.8060	25.8065	25.8065
14	8.3333	13.3333	22.2222	12.2449	12.2449
15	22.2222	23.5294	33.3333	29.0909	21.8182
16	20	21.0526	24.2424	19.6721	16.3934
17	25	18.8679	29.0323	21.0526	21.0526
18	20	17.5439	24.2424	19.6721	19.6721
19	17.2414	14.5455	28.1250	16.9492	16.9492
20	26.2295	31.0345	35.8209	32.2581	25.8065
21	22.2222	15.6863	30	21.8182	21.8182
22	22.9508	20.6897	26.8657	16.1290	19.3548
23	25.8065	23.7288	26.4706	25.3968	25.3968
24	20.6897	21.8182	31.2500	23.7288	13.5593
25	29.0909	26.9231	36.0656	21.4286	28.5714
26	21.4286	15.0943	29.0323	17.5439	21.0526
27	34.3750	36.0656	40	33.8462	30.7692
28	31.7460	33.3333	37.6812	34.3750	31.2500
29	28.5714	36.6667	40.5797	31.2500	28.1250
30	22.9508	20.6897	23.8806	22.5806	19.3548
31	21.8750	26.2295	31.4286	24.6154	24.6154
32	23.8806	18.7500	24.6575	23.5294	23.5294
33	32.7869	34.4828	35.8209	29.0323	38.7097
34	27.6923	29.0323	25.3521	27.2727	27.2727
35	27.1186	32.1429	33.8462	30	26.6667
36	30	31.5789	30.3030	22.9508	29.5082
37	25.9259	27.4510	33.3333	21.8182	29.0909
38	30	24.5614	33.3333	26.2295	32.7869
39	26.4151	20	33.8983	25.9259	33.3333
40	24.1379	14.5455	28.1250	20.3390	27.1186
41	17.2414	29.0909	21.8750	16.9492	20.3390
42	16.6667	17.5439	24.2424	9.8361	13.1148
43	25.4545	19.2308	29.5082	21.4286	21.4286
44	32.3529	27.6923	29.7297	23.1884	26.0870
45	28.1250	36.0656	34.2857	27.6923	24.6154
46	42.2535	35.2941	38.9610	30.5556	33.3333
47	26.6667	24.5614	30.3030	32.7869	29.5082
48	29.0323	20.3390	26.4706	22.2222	28.5714
49	40.6780	25	30.7692	20	36.6667
50	36.6197	35.2941	41.5584	33.3333	30.5556
51	34.7826	33.3333	37.3333	34.2857	34.2857
52	39.3443	37.9310	44.7761	41.9355	38.7097
53	38.8060	37.5000	43.8356	32.3529	32.3529
54	37.1429	38.8060	36.8421	28.1690	33.8028
55	37.6812	33.3333	37.3333	22.8571	28.5714
56	35.4839	30.5085	41.1765	25.3968	34.9206
57	38.5965	29.6296	41.2698	27.5862	37.9310
58	20	21.2766	25	23.5294	23.5294
59	35.0877	40.7407	47.6190	37.9310	27.5862
60	33.9623	40	44.0678	40.7407	29.6296
61	26.6667	33.3333	35.2941	26.0870	21.7391
62	12.2449	21.7391	18.1818	28	20
63	9.7561	26.3158	17.0213	28.5714	9.5238
64	10	21.6216	21.7391	24.3902	14.6341
65	10	27.0270	21.7391	24.3902	14.6341
66	8.1633	17.3913	21.8182	28	12

67	9.7561	21.0526	25.5319	28.5714	14.2857
68	10	21.6216	17.3913	24.3902	14.6341
69	10.2564	27.7778	22.2222	30	15
70	9.0909	19.5122	20	22.2222	8.8889
71	17.7778	23.8095	23.5294	34.7826	17.3913
72	33.9623	44	44.0678	51.8519	44.4444
73	40.6250	39.3443	51.4286	40	36.9231
74	49.1228	37.0370	44.4444	31.0345	48.2759
75	50	42.1053	48.4848	39.3443	52.4590
76	44.4444	46.6667	52.1739	40.6250	56.2500
77	58.1818	50	65.5738	46.4286	60.7143
78	58.6207	50.9091	62.5000	47.4576	61.0169
79	41.2698	36.6667	52.1739	34.3750	40.6250
80	46.4286	41.5094	58.0645	42.1053	49.1228
81	49.1228	59.2593	63.4921	55.1724	62.0690
82	55.5556	58.8235	76.6667	65.4545	50.9091
83	51.0638	50	60.3774	62.5000	41.6667
84	51.0638	54.5455	41.5094	62.5000	54.1667
85	100	58.8235	70	43.6364	69.0909
86	58.8235	100	66.6667	61.5385	57.6923
87	70	66.6667	100	59.0164	62.2951
88	43.6364	61.5385	59.0164	100	53.5714
89	69.0909	57.6923	62.2951	53.5714	100

Analysis finished at - 4:07:21pm

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**********************
***** M V S P *****
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Ver. 2.1e

Date of analysis - January 31, 1995
Time of analysis -  3:10:19pm

Input file name   - A:\JORNADAS.MVS
Output directed to printer
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CORRESPONDENCE ANALYSIS
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Jornada

File of 61 rows x 89 columns

Scores will be detrended

AXIS	EIGENVALUE	PERCENT OF TOTAL	CUMULATIVE PERCENT
1	0.848	25.46	25.46
2	0.290	8.72	34.18
3	0.120	3.59	37.78
4	0.082	2.45	40.23

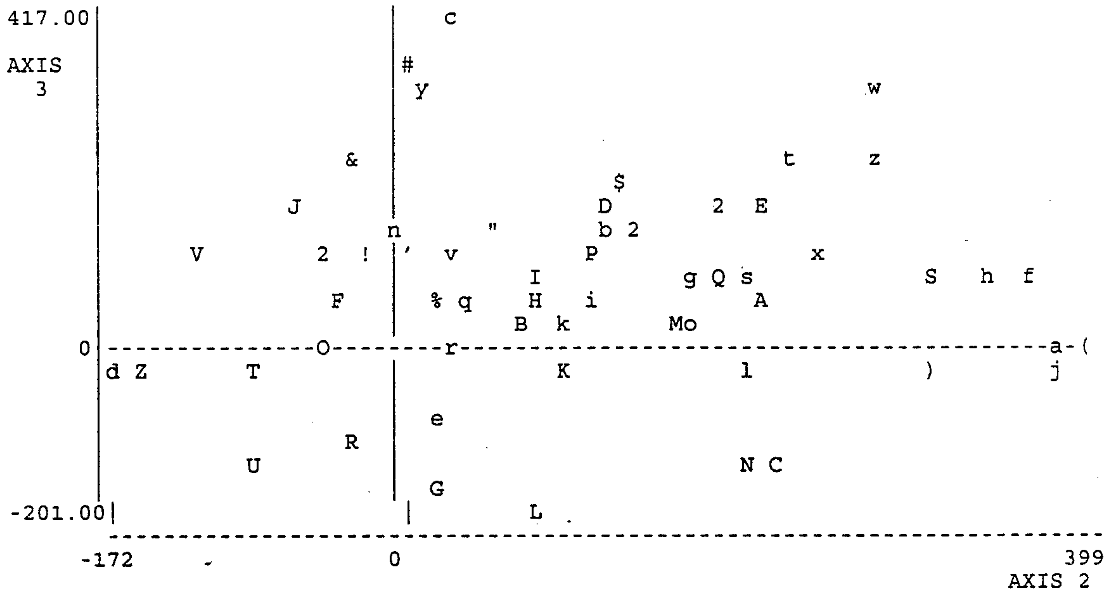
SPECIES SCORES

	PLOT	AXIS 1	AXIS 2	AXIS 3	AXIS 4
et	A	39	204	62	118
lt	B	-35	66	28	-89
pg	C	276	215	-138	-8
ye	D	33	114	154	31
xm	E	14	202	172	203
xs	F	107	-39	55	99
za	G	-50	14	-166	-91
zg	H	38	76	55	182
ba	I	27	72	93	78
cb	J	38	-67	155	170
cp	K	40	88	-38	91
hc	L	556	63	-201	524
hg	M	431	158	26	63
hv	N	45	198	-138	43
pn	O	48	-46	2	177
sl	P	526	104	118	-30
se	Q	94	180	67	62
ss	R	49	-34	-106	154
ta	S	45	301	82	20
an	T	326	-94	-23	73
at	U	35	-93	-137	-9
bp	V	39	-126	117	49
bm	W	40	-50	117	98
ci	X	246	-50	95	165

ea	Y	37	180	176	131
et	Z	26	-189	-33	147
hg	a	36	377	7	271
ho	b	550	114	150	30
ve	c	151	22	417	256
xs	d	53	-172	-38	31
al	e	38	18	-84	57
at	f	45	355	77	254
aw	g	-16	164	69	33
be	h	45	334	91	39
ce	i	545	102	42	240
el	j	44	378	-25	99
ep	k	28	92	18	118
mp	l	109	197	-37	39
po	m	475	129	127	50
sc	n	29	-10	148	46
scr	o	47	166	26	125
ai	p	33	179	176	174
ac	q	46	29	50	190
ea	r	122	21	-12	186
aa	s	131	195	67	225
ba	t	39	216	220	233
bb	u	69	129	147	238
ch	v	181	24	96	227
ap	w	347	269	309	-49
bi	x	65	236	104	203
bs	y	36	6	309	190
em	z	37	270	234	0
es	!	43	-28	115	98
kp	"	52	46	147	156
pa	#	45	3	319	216
po	$	499	118	188	-59
sk	%	157	12	59	190
cl	&	35	-36	229	135
tt	'	191	0	122	236
op	(	7	399	-6	342
ov	)	56	303	-28	206

```
399.00|     |  (  aj
      |     |      f
AXIS  |     |      h
  2   |     |      S)
      |     |     z                                   w
      |     |        x
      |     |     t                           C
      |     | E   3N     Ql  s
      |    g|      o                                            M
      |     |        u                                              m
      |     |     D                                                    $   P 2
      |     |    k2
      |  B  |    I                                                           L
      |     |      q"              v
     0|G---------2#--------r--c%---'------------------------------------------
      |     |    n !
      |     |     22      F               X
      |     |     J
      |     |     U                                T
      |     |     V
      |     |    Z
-172.00|     |      d
       ------------------------------------------------------------------------
      -50   0                                                              556
                                                                       AXIS 1
```

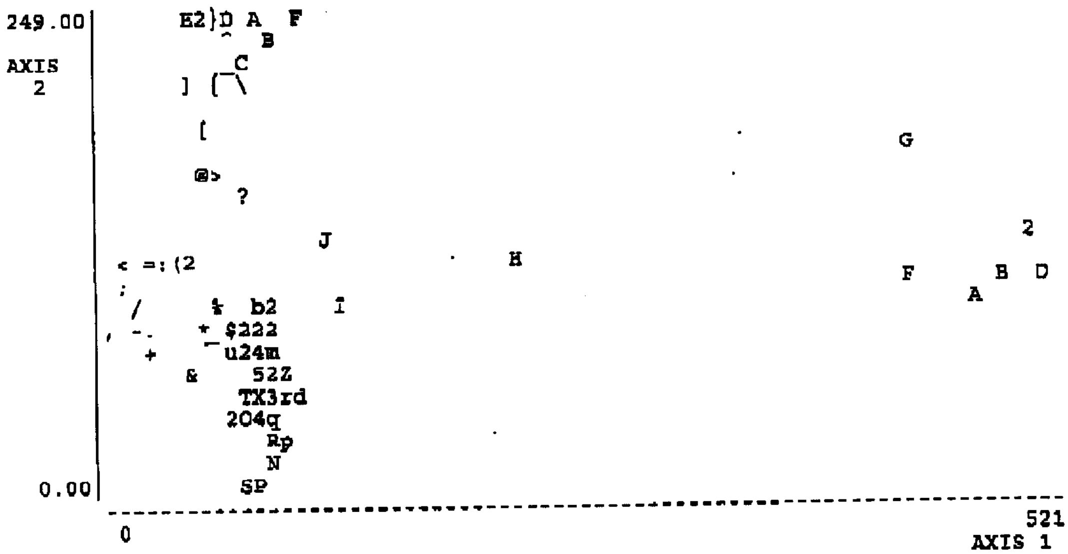
```
417.00|     |                 c
      |     |
AXIS  |     |      #
  3   |     |     y                                   w
      |     |
      |     |
      |     |     3
      |     |                                                        $
      |     | E   4
      |     |    n  " u                                              m       b
      |     |     2! x             v'     X                                P
      |    g|    I 3     Q   s
      |     |     2q      F     %                                            i
      |  B  |    k o                                            M
     0|-------(--aO--------r--------------------------------------------------
      |     |    ZKj2     l                        T
      |     |
      |     |     e
      |     |      R
      |     |     UN                          C
      |G    |
-201.00|     |                                                               L
       ------------------------------------------------------------------------
      -50   0                                                              556
                                                                       AXIS 1
```

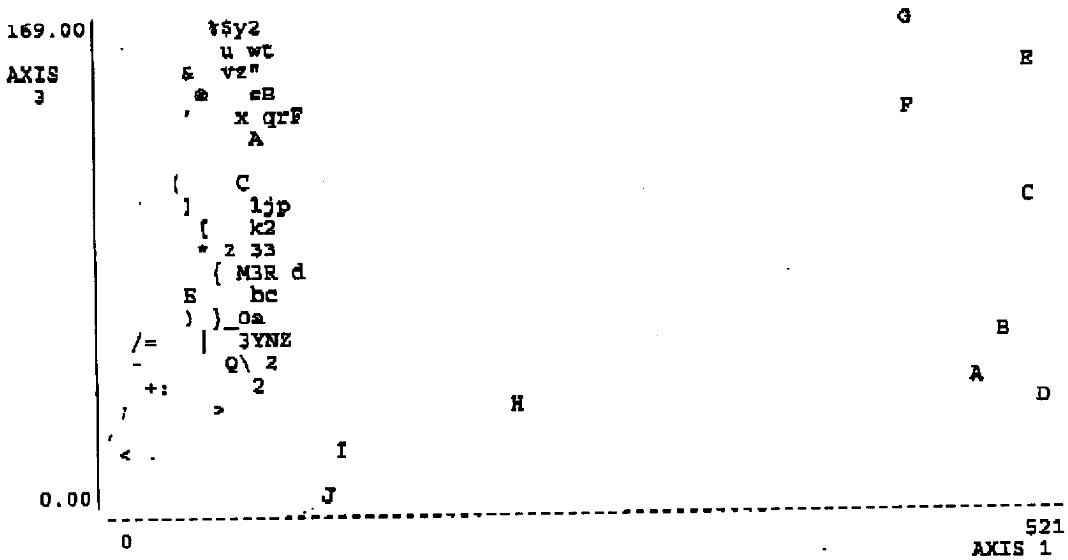

417.00
AXIS 3
0
-201.00
-172
0
399
AXIS 2

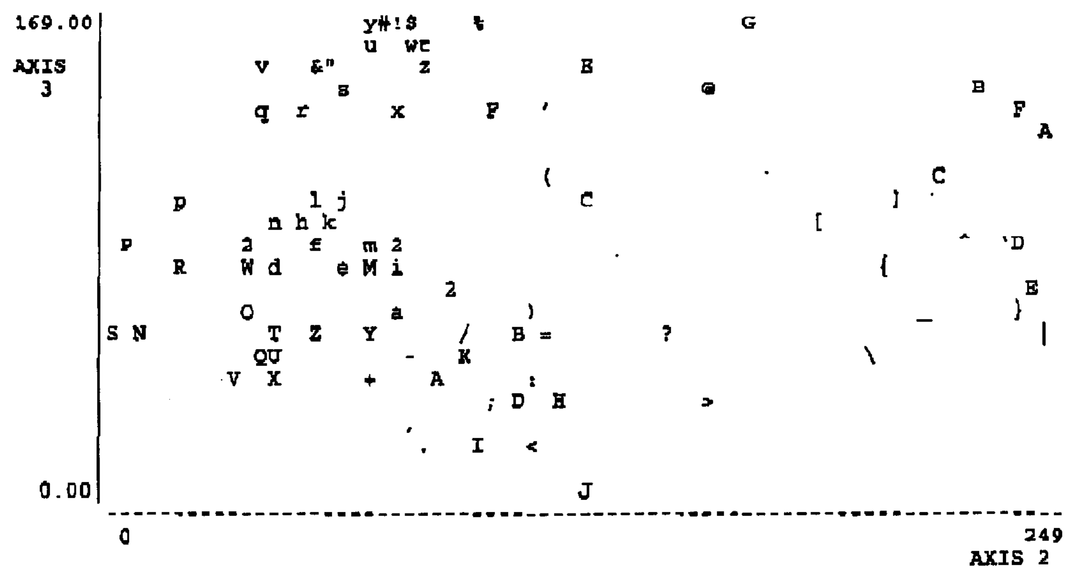
SAMPLE SCORES

	PLOT	AXIS 1	AXIS 2	AXIS 3	AXIS 4
1	A	476	85	42	151
2	B	492	105	57	118
3	C	503	124	100	75
4	D	521	105	34	181
5	E	504	125	143	19
6	F	439	99	129	44
7	G	442	166	160	11
8	H	225	118	31	91
9	I	125	96	13	101
10	J	118	125	0	94
11	K	91	94	47	110
12	L	80	35	84	120
13	M	72	68	77	125
14	N	89	7	57	109
15	O	75	36	60	117
16	P	79	5	85	137
17	Q	64	39	46	135
18	R	90	19	78	140
19	S	72	0	51	120
20	T	73	42	52	132
21	U	88	44	44	123
22	V	81	31	37	121
23	W	81	37	78	142
24	X	82	44	40	130
25	Y	81	68	51	143
26	Z	100	55	56	139
27	a	82	74	58	137
28	b	81	88	68	130
29	c	87	88	72	137
30	d	105	44	73	145
31	e	85	60	74	160
32	f	87	54	86	136
33	g	89	76	81	154
34	h	88	49	94	152
35	i	81	73	76	150
36	j	93	62	103	162
37	k	85	58	95	166
38	l	84	55	97	159
39	m	88	67	88	166
40	n	93	41	90	159
41	o	81	34	81	158
42	p	100	17	101	161
43	q	91	39	130	151
44	r	99	50	134	158
45	s	85	60	135	149
46	t	89	81	154	142
47	u	70	66	153	127
48	v	69	38	146	161
49	w	80	78	151	140
50	x	75	76	130	121
51	y	72	69	165	144
52	z	74	83	143	146
53	!	82	73	168	138

54	"	81	58	149	145
55	#	84	71	159	166
56	$	64	80	169	159
57	%	58	95	166	177
58	&	44	54	147	118
59	'	47	114	132	145
60	(	35	115	106	95
61	)	42	109	63	75
62	*	53	74	81	45
63	+	25	69	41	23
64	,	0	78	25	0
65	-	18	78	44	58
66	.	19	81	18	40
67	/	16	94	53	33
68	:	29	109	40	31
69	;	11	98	30	37
70	<	5	111	15	36
71	=	21	114	53	33
72	>	56	158	32	56
73	?	72	147	51	112
74	@	53	156	135	133
75	[	49	186	96	144
76	\	73	199	48	116
77	]	44	206	97	141
78	^	64	223	83	145
79	_	67	213	60	157
80	`	51	234	86	215
81	{	57	204	76	131
82	|	50	248	57	130
83	}	61	240	65	115
84	A	82	249	122	58
85	B	86	229	137	119
86	C	71	218	110	97
87	D	67	237	88	136
88	E	46	243	70	118
89	F	104	239	129	113


249.00
AXIS
2
0.00
0
521
AXIS 1


169.00
AXIS
3
0.00
0
521
AXIS 1



Analysis finished at - 3:13:12pm

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*********************
*****  M V S P  *****
*********************
Ver. 2.1e

Date of analysis - January 31, 1995
Time of analysis -  2:33:57pm

Input file name  - A:\JORNADAS.MVS
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PRINCIPAL COMPONENTS ANALYSIS
===========================

Jornada

File of 61 rows x 89 columns

Tolerance of eigenanalysis set at 1.0E-0006

CENTERED COVARIANCE MATRIX

AXIS	EIGENVALUE	PERCENT OF TOTAL	CUMULATIVE PERCENT
1	7.622	20.53	20.53
2	5.174	13.93	34.46
3	4.051	10.91	45.37
4	3.140	8.46	53.82
5	2.108	5.68	59.50
6	1.736	4.68	64.18
7	1.408	3.79	67.97
8	0.939	2.53	70.50
9	0.888	2.39	72.89
10	0.778	2.09	74.98
11	0.742	2.00	76.98
12	0.677	1.82	78.80
13	0.529	1.43	80.23
14	0.507	1.36	81.59
15	0.474	1.28	82.87
16	0.455	1.23	84.09
17	0.429	1.16	85.25
18	0.414	1.11	86.36
19	0.386	1.04	87.40
20	0.337	0.91	88.31
21	0.292	0.79	89.10
22	0.273	0.73	89.83
23	0.243	0.65	90.48
24	0.231	0.62	91.11
25	0.225	0.60	91.71
26	0.220	0.59	92.30
27	0.203	0.55	92.85
28	0.200	0.54	93.39
29	0.187	0.50	93.89
30	0.184	0.49	94.39
31	0.166	0.45	94.83
32	0.155	0.42	95.25

33	0.147	0.40	95.65
34	0.140	0.38	96.02
35	0.137	0.37	96.39
36	0.129	0.35	96.74
37	0.112	0.30	97.04
38	0.103	0.28	97.32
39	0.097	0.26	97.58
40	0.091	0.24	97.82
41	0.090	0.24	98.07
42	0.082	0.22	98.29
43	0.073	0.20	98.48
44	0.067	0.18	98.66
45	0.062	0.17	98.83
46	0.059	0.16	98.99
47	0.051	0.14	99.13
48	0.044	0.12	99.25
49	0.039	0.11	99.35
50	0.036	0.10	99.45
51	0.032	0.09	99.54
52	0.029	0.08	99.62
53	0.026	0.07	99.68
54	0.023	0.06	99.75
55	0.022	0.06	99.81
56	0.018	0.05	99.85
57	0.016	0.04	99.90
58	0.015	0.04	99.94
59	0.010	0.03	99.96
60	0.009	0.02	99.99
61	0.004	0.01	100.00

EIGENVECTORS (COMPONENT LOADINGS)

	PLOT	AXIS 1	AXIS 2	AXIS 3	AXIS 4	AXIS 5
et	A	0.0150	0.1664	0.0031	-0.0059	-0.2875
lt	B	-0.2931	-0.0445	-0.6847	-0.0961	0.1711
pg	C	-0.0845	0.0179	0.0109	0.2496	-0.4853
ye	D	0.0309	0.0719	-0.0037	-0.0516	-0.1677
xm	E	-0.0645	0.1386	-0.1335	-0.1339	0.0858
xs	F	0.2639	-0.0957	0.0070	0.2314	-0.2545
za	G	-0.0470	-0.0150	-0.1077	0.0111	0.0273
zg	H	0.0701	0.0315	0.0073	0.0811	0.0643
ba	I	0.0753	0.0585	-0.1453	-0.0109	-0.0087
cb	J	0.0888	-0.0064	-0.0018	-0.0213	-0.0610
cp	K	0.0909	0.0693	0.0035	0.2414	0.0312
hc	L	-0.0703	-0.1396	0.1105	-0.0698	-0.0022
hg	M	-0.0501	-0.1003	0.0884	-0.0232	-0.0446
hv	N	0.0087	0.0308	0.0293	0.0568	0.0101
pn	O	0.1260	-0.0538	-0.0019	0.1352	0.0783
sl	P	-0.1210	-0.2407	0.2021	-0.1289	0.0138
se	Q	0.0399	0.0493	0.0274	0.0485	-0.0079
ss	R	0.1323	-0.0475	0.0331	0.2263	0.1099
ta	S	-0.0072	0.0328	0.0267	0.0053	0.0229
an	T	0.0417	-0.0496	0.0224	0.0546	0.0045
at	U	0.0100	-0.0042	-0.0009	0.0284	-0.0212
bp	V	0.0257	-0.0088	-0.0023	0.0098	-0.0213
bm	W	0.1084	-0.0295	-0.0342	-0.0034	0.0025
ci	X	0.3065	-0.1031	-0.0112	0.0076	0.0132
ea	Y	0.0648	0.1218	0.0302	-0.0809	-0.0403

et	Z	0.0409	-0.0213	-0.0058	0.0413	-0.0059
hg	a	-0.0614	0.1392	0.0740	0.0053	0.0477
ho	b	-0.0925	-0.1789	0.1530	-0.0985	0.0072
ve	c	0.0588	0.0116	0.0057	-0.1000	-0.1024
xs	d	0.0298	-0.0166	-0.0018	0.0429	0.0020
al	e	0.0524	-0.0057	-0.0307	0.1577	0.0565
at	f	-0.0455	0.1180	0.0631	0.0076	0.0013
aw	g	-0.0247	0.0175	-0.0531	-0.0125	-0.0040
be	h	-0.2096	0.5327	0.2946	-0.0150	0.1182
ce	i	-0.0541	-0.1054	0.0887	-0.0571	0.0042
el	j	-0.0401	0.0819	0.0403	0.0214	0.0017
ep	k	0.1070	0.0945	-0.0427	0.1588	0.1246
mp	l	-0.1442	0.1203	-0.1360	0.2676	-0.3669
po	m	-0.2096	-0.4054	0.3428	-0.1433	-0.1437
sc	n	0.0485	-0.0077	-0.0577	-0.0220	-0.0005
scr	o	0.1043	0.1208	0.0915	0.1304	0.0892
ai	p	0.0424	0.1260	-0.0056	-0.1030	-0.0685
ac	q	0.1251	0.0108	0.0208	0.0429	0.0233
ea	r	0.0445	-0.0042	0.0080	0.0921	-0.0235
aa	s	0.0773	0.1485	0.1377	0.0698	0.1245
ba	t	0.0857	0.2795	0.1130	-0.2618	-0.0627
bb	u	0.1269	0.1042	0.0488	-0.0402	-0.0280
th	v	0.0425	-0.0137	0.0191	0.0380	0.0041
ap	w	-0.0202	0.1009	0.1503	-0.2144	0.0027
bi	x	-0.0055	0.2067	0.0819	-0.0168	-0.0757
bs	y	0.1631	0.0504	-0.0890	-0.3158	-0.2356
em	z	-0.0179	0.0660	0.0117	-0.0475	-0.0099
es	!	0.1960	-0.0269	-0.0268	0.0172	-0.0272
kp	"	0.1085	0.0233	0.0189	-0.0281	0.0232
pa	#	0.1687	0.0304	-0.0004	-0.2295	-0.0675
po	$	-0.0632	-0.1296	0.1169	-0.0704	0.0214
sk	%	0.1824	-0.0609	0.0362	0.1637	-0.1430
tl	&	0.3963	-0.0097	-0.1716	-0.4013	-0.1554
tt	'	0.3412	-0.0787	0.0996	0.0396	0.4060
op	(	-0.0599	0.1138	0.0551	-0.0155	0.0765
ov	)	-0.0285	0.0389	-0.0088	0.0076	0.0325

	PLOT	AXIS 6	AXIS 7	AXIS 8	AXIS 9	AXIS 10
et	A	0.1449	0.2604	0.3470	0.1618	-0.5149
lt	B	0.1690	0.0970	-0.0634	0.1262	0.0333
pg	C	0.2258	-0.1657	-0.1251	-0.0435	0.1244
ye	D	-0.1163	-0.0908	-0.4400	0.2109	-0.3739
xm	E	-0.0457	-0.4228	-0.1492	-0.3652	-0.1062
xs	F	0.0011	0.2457	-0.1125	-0.2615	-0.0133
za	G	0.0138	-0.0102	-0.0433	-0.0224	-0.0172
zg	H	0.0012	-0.1153	-0.1078	0.0431	0.0199
ba	I	-0.0468	-0.1733	0.2278	0.1131	0.0568
cb	J	-0.0520	0.1286	-0.0522	-0.1033	-0.0414
cp	K	-0.2540	-0.0217	-0.0737	0.1011	-0.1814
hc	L	-0.0641	-0.0199	0.0655	0.0522	-0.0704
hg	M	-0.0148	-0.0499	0.0034	0.0075	-0.0038
hv	N	-0.1022	0.1183	0.0474	0.0186	-0.0080
pn	O	0.0267	0.0293	0.0069	-0.0888	-0.0606
sl	P	-0.0603	-0.0239	0.0419	0.0754	-0.1124
se	Q	0.1423	0.0227	-0.1133	-0.0018	0.0216
ss	R	-0.0505	0.0453	0.0784	0.0942	0.0218
ta	S	0.0403	0.0239	0.0480	0.0259	0.0212
an	T	-0.1056	0.0559	0.0206	0.0045	-0.0270
at	U	-0.0671	0.0272	-0.0119	0.0096	0.0162

bp	V	-0.0776	0.0484	0.0093	-0.0214	0.0713
bm	W	-0.0077	0.1041	-0.0674	-0.1385	-0.0345
ci	X	-0.2580	0.1235	0.0413	0.1707	0.2673
ea	Y	0.0423	0.0883	-0.1322	0.0275	-0.0565
et	Z	-0.0874	0.0790	0.0456	-0.0999	0.0311
hg	a	-0.0194	-0.0667	0.1107	-0.1452	-0.0521
ho	b	-0.0358	-0.0320	0.0394	0.0494	-0.1427
ve	c	0.0498	-0.0408	0.0385	0.0328	0.0793
xs	d	-0.0985	0.0625	-0.0105	-0.0266	0.0189
al	e	-0.1091	-0.0466	-0.1606	0.1350	-0.1232
at	f	-0.0738	-0.1759	-0.1172	-0.0858	-0.0663
aw	g	0.0208	0.0158	-0.0251	-0.0105	-0.0798
be	h	0.1484	0.2865	-0.0816	0.1491	0.1353
ce	i	-0.0279	-0.0153	0.0263	0.0323	-0.0717
el	j	-0.0398	-0.0841	-0.0342	-0.0409	-0.0757
ep	k	-0.2095	-0.0588	-0.0655	-0.0663	-0.0719
mp	l	0.1218	-0.1318	0.1851	0.0113	-0.0868
po	m	0.0584	-0.1177	-0.0138	0.0179	0.0244
sc	n	0.0488	0.0082	-0.0319	0.0446	-0.0658
scr	o	0.0231	-0.0666	-0.1776	0.1669	-0.1164
ai	p	-0.0650	-0.1085	0.1593	0.2932	0.1105
ac	q	-0.0251	0.0436	0.1137	0.0379	0.0076
ea	r	0.0043	-0.0470	0.0084	0.0187	-0.0047
aa	s	-0.0795	-0.1658	0.0454	-0.1539	-0.0011
ba	t	-0.0279	-0.0664	0.1090	-0.3761	-0.0615
bb	u	-0.0203	-0.1573	0.1717	-0.0470	0.1075
th	v	0.1089	-0.0710	0.0147	0.0514	0.1021
ap	w	0.1655	0.2564	-0.3409	-0.0065	0.2093
bi	x	-0.1180	-0.3070	0.0073	0.3444	0.1539
bs	y	-0.1292	-0.1450	0.0340	0.1866	0.1380
em	z	-0.0098	0.0521	-0.0854	0.0360	0.0968
es	!	-0.0667	0.0819	-0.0031	-0.0088	0.0599
kp	"	-0.0192	0.0027	0.0411	0.1487	0.0244
pa	#	0.1286	0.0369	-0.1154	0.0709	-0.1792
po	$	0.0096	-0.0298	0.0051	0.0288	-0.0959
sk	%	0.3797	-0.1362	-0.0719	-0.0220	0.2794
tl	&	0.0533	0.0302	0.0008	-0.0711	-0.0654
tt	'	0.5474	-0.2081	0.0833	0.1281	-0.2095
op	(	0.0269	0.0992	0.3610	-0.1178	0.0332
ov	)	-0.0289	-0.0631	0.0476	-0.0282	0.0014

	PLOT	AXIS 11	AXIS 12	AXIS 13	AXIS 14	AXIS 15
et	A	-0.0727	0.3536	0.1898	-0.1789	-0.0331
lt	B	-0.0496	-0.0132	0.1015	0.1042	-0.1184
pg	C	-0.2214	-0.1213	-0.1237	-0.0906	-0.1364
ye	D	0.4643	-0.0283	-0.2168	-0.1053	-0.1691
xm	E	-0.0073	0.2255	-0.0106	-0.1829	0.0723
xs	F	0.1423	0.1707	-0.1169	0.0900	0.0519
za	G	-0.0007	0.0270	-0.0527	0.0783	0.0191
zg	H	-0.0738	-0.0571	0.0331	0.1288	0.1887
ba	I	0.0525	0.1244	-0.0316	-0.0701	0.2031
cb	J	0.0365	0.0644	-0.0615	0.1310	0.2209
cp	K	-0.2766	-0.1959	0.1279	0.0416	-0.3155
hc	L	-0.0958	-0.0674	-0.1647	-0.2387	0.0279
hg	M	-0.0945	-0.0322	-0.0346	-0.1477	0.0336
hv	N	-0.0698	0.1056	0.0592	-0.0687	-0.0705
pn	O	0.1454	0.0606	-0.0184	-0.0232	0.1275
sl	P	-0.0346	-0.0131	0.0187	0.0085	-0.0011
se	Q	-0.0935	-0.1355	0.1463	-0.1486	-0.0166

ss	R	0.0220	-0.0190	0.1812	-0.1472	-0.0757
ta	S	0.0543	0.0459	0.0546	0.0162	0.0484
an	T	0.1411	0.0428	0.0025	0.1322	0.0678
at	U	0.0749	0.0181	-0.0064	0.0194	-0.0250
bp	V	-0.0110	0.0506	-0.0256	0.0820	0.0632
bm	W	0.0731	0.0386	0.0178	0.0011	0.0603
ci	X	-0.0670	0.0406	-0.2025	0.0568	-0.2792
ea	Y	-0.1962	0.2021	0.0953	0.1529	-0.1485
et	Z	0.1138	0.0577	0.1044	-0.0984	0.2813
hg	a	-0.0104	-0.0106	-0.0901	-0.0289	-0.0872
ho	b	-0.0264	-0.0290	0.0503	0.0016	0.0754
ve	c	-0.0608	0.1544	-0.0543	0.1815	0.0412
xs	d	-0.0107	0.0799	-0.0100	-0.0048	0.0930
al	e	0.0972	-0.1664	0.1644	0.0939	0.0712
at	f	-0.0583	0.0662	-0.0639	-0.0471	0.0133
aw	g	-0.0336	-0.0387	0.0131	0.0948	-0.0113
be	h	0.0106	-0.1239	-0.2209	-0.0267	0.1844
ce	i	-0.0281	-0.0207	-0.0056	-0.0440	0.0331
el	j	-0.0642	-0.0046	-0.1049	-0.0600	0.0706
ep	k	-0.1157	0.0539	0.0187	-0.0152	-0.1093
mp	l	0.1239	-0.2307	0.0261	0.3769	0.1356
po	m	-0.0324	-0.0191	0.0840	0.1647	-0.0516
sc	n	-0.0935	0.2056	-0.1390	0.1869	-0.0694
scr	o	-0.2383	-0.1447	0.0985	-0.1351	0.2274
ai	p	0.3097	-0.0436	0.2079	-0.1277	-0.1379
ac	q	0.0126	-0.0603	-0.0088	0.0576	0.0419
ea	r	-0.0175	-0.0149	-0.0525	0.0731	0.2493
aa	s	0.2095	0.0375	0.2384	0.2239	-0.1276
ba	t	0.0062	-0.2479	0.2518	0.1628	-0.1859
bb	u	-0.1970	0.1892	-0.0431	-0.0127	-0.0229
th	v	-0.0138	0.0094	-0.0500	0.0772	0.0153
ap	w	0.0713	0.1982	0.2805	0.0582	-0.0710
bi	x	-0.0904	0.3198	-0.0333	0.2245	0.0321
bs	y	0.1755	-0.0953	-0.0229	-0.0804	0.0796
em	z	0.0346	-0.0634	-0.1271	0.0162	0.0443
es	!	-0.0483	-0.1057	-0.0423	0.1317	0.0635
kp	"	-0.0973	-0.1745	0.2869	0.0054	0.2233
pa	#	-0.2047	-0.0845	-0.1752	0.1962	-0.0953
po	$	0.0640	0.0276	0.1462	0.2349	0.0082
sk	%	0.1164	0.0648	0.1927	-0.2689	-0.1609
tl	&	-0.1486	-0.2455	-0.0003	-0.0992	0.1396
tt	'	0.1063	0.0049	-0.1666	0.1155	-0.0484
op	(	0.1608	-0.2055	-0.2893	-0.0231	-0.2497
ov	)	-0.0540	0.0910	-0.0840	-0.0537	0.0003

	PLOT	AXIS 16	AXIS 17	AXIS 18	AXIS 19	AXIS 20
et	A	-0.0158	0.0289	0.0977	0.0193	0.1471
lt	B	-0.0279	0.0491	0.0002	0.1829	0.0299
pg	C	-0.2249	-0.1894	-0.2870	-0.0079	0.2460
ye	D	0.0860	-0.0277	-0.1629	0.1255	0.0827
xm	E	0.1358	-0.0564	0.1021	-0.1458	-0.0767
xs	F	0.1255	-0.0072	-0.0086	-0.1086	-0.2077
za	G	0.0580	0.0143	0.0110	-0.1126	-0.0545
zg	H	-0.0195	0.1724	0.0615	0.2032	0.2771
ba	I	-0.1234	-0.0647	-0.0136	0.0041	0.0298
cb	J	-0.0696	0.0557	0.0046	0.1805	0.0543
cp	K	-0.1114	-0.0419	0.2193	-0.2189	0.0467
hc	L	0.0783	0.5378	-0.1272	0.0667	-0.1451
hg	M	0.1498	0.1032	0.0076	-0.1470	0.0131

hv	N	-0.0160	-0.0783	0.0263	0.0091	-0.0722
pn	O	0.0078	0.0512	-0.0308	-0.1349	0.0296
sl	P	-0.0437	0.0750	0.0662	0.0478	0.0054
se	Q	0.0549	-0.0512	0.0730	0.1585	-0.2072
ss	R	-0.0174	-0.1112	-0.1164	-0.0319	-0.1579
ta	S	-0.0260	0.0832	0.0449	-0.0612	0.0520
an	T	-0.0348	-0.1900	0.1290	0.0332	0.0564
at	U	0.0281	0.0269	0.0636	0.0196	-0.0153
bp	V	0.0493	-0.0028	-0.0014	0.0141	-0.0142
bm	W	0.0253	0.1212	0.0993	0.0305	0.1116
ci	X	-0.0787	0.1612	0.0576	0.0252	0.1950
ea	Y	-0.0514	0.1378	-0.1378	0.1949	-0.0603
et	Z	-0.1442	-0.0141	-0.0547	0.2547	0.1400
hg	a	-0.0056	-0.0226	0.1340	0.0466	0.1038
ho	b	-0.0398	0.0877	0.0379	0.1417	-0.1732
ve	c	0.1931	0.0258	-0.2218	-0.0543	0.0613
xs	d	0.0160	-0.0496	0.0406	0.1306	0.1113
al	e	0.2418	0.0067	-0.0037	-0.0106	-0.1688
at	f	-0.0981	-0.0417	0.0167	0.0381	0.0205
aw	g	0.0873	0.0386	0.0678	0.0263	-0.0184
be	h	-0.1365	0.0272	0.0921	0.0001	-0.0614
ce	i	-0.0004	0.1298	-0.0006	0.0527	-0.0820
el	j	-0.0873	-0.0121	0.1350	-0.0393	0.0965
ep	k	0.0601	-0.1054	0.0725	0.4095	-0.1417
mp	l	0.0564	0.1824	0.2102	-0.0427	-0.2421
po	m	0.0076	-0.1761	0.0718	0.1260	-0.0246
sc	n	0.1014	-0.0298	-0.1836	0.0573	-0.0236
scr	o	0.1058	-0.0972	0.0008	0.1247	-0.0160
ai	p	-0.1160	-0.0488	-0.2272	-0.0908	-0.1937
ac	q	0.0512	-0.0506	0.0007	-0.0219	-0.0944
ea	r	-0.0109	-0.0903	-0.1761	0.1645	0.0363
aa	s	-0.2618	0.2263	-0.0244	0.0888	0.1659
ba	t	0.0456	0.1552	-0.2197	0.0107	0.0457
bb	u	0.1587	-0.1351	-0.0789	0.0204	-0.2016
th	v	0.0553	0.0495	-0.0144	0.0199	0.0673
ap	w	0.1179	-0.0918	0.0797	-0.1347	-0.0488
bi	x	0.0571	0.0527	0.0334	0.1055	-0.1703
bs	y	0.0561	-0.0369	0.3262	-0.0443	0.1602
em	z	-0.1044	-0.0090	0.0214	-0.0308	-0.0955
es	!	-0.0463	0.0411	0.0432	-0.0998	-0.1228
kp	"	0.4404	-0.0499	-0.1827	-0.1069	0.3723
pa	#	0.1440	0.0522	0.1831	-0.0212	0.0702
po	$	-0.1374	-0.3354	0.1470	0.0732	0.0357
sk	%	0.1209	0.2016	0.3282	0.2779	0.0153
tl	&	-0.2741	-0.1377	0.0137	0.1163	-0.2342
tt	'	-0.1146	-0.0309	-0.0384	-0.1076	0.0131
op	(	0.3806	-0.2510	0.0292	0.3283	0.0431
ov	)	0.0450	-0.0474	0.2772	-0.1819	0.0904

	PLOT	AXIS 21	AXIS 22	AXIS 23	AXIS 24	AXIS 25
et	A	0.0030	0.0243	-0.0054	-0.0427	0.0118
lt	B	0.1076	-0.0187	0.0110	0.0058	-0.0042
pg	C	-0.0202	0.0189	-0.0066	-0.0756	0.0159
ye	D	0.0928	-0.0040	0.0743	0.0801	-0.0203
xm	E	-0.0202	-0.2280	0.0561	-0.2724	-0.1504
xs	F	0.0660	-0.1464	-0.0395	0.0648	0.1357
za	G	-0.0486	-0.0657	-0.0474	-0.0775	-0.0045
zg	H	-0.0205	0.1946	0.0124	-0.0718	0.1778
ba	I	0.2215	0.0770	0.0222	0.0110	0.1685

cb	J	-0.0450	-0.0180	-0.1090	0.0419	-0.1707
cp	K	-0.0760	-0.0623	-0.2021	-0.0503	0.0069
hc	L	0.0082	-0.0120	-0.1015	-0.0544	-0.1626
hg	M	0.1453	0.2415	-0.1989	-0.0588	-0.0883
hv	N	0.0006	0.1182	0.1005	-0.0536	-0.1574
pn	O	-0.0336	-0.0368	0.0043	-0.0833	0.0096
sl	P	0.1617	-0.0266	0.1292	-0.1331	0.1672
se	Q	0.0003	-0.1120	0.1799	0.0307	-0.2310
ss	R	-0.0404	0.0165	-0.0011	-0.0591	-0.1619
ta	S	-0.0408	0.0374	-0.0472	0.1240	-0.0310
an	T	-0.0897	-0.0649	0.2291	-0.0602	-0.1405
at	U	-0.0213	-0.0342	0.0912	0.0496	0.0410
bp	V	0.0877	-0.0625	0.0170	0.1751	-0.0094
bm	W	0.0150	0.0383	-0.0451	0.0145	0.0227
ci	X	0.3689	-0.1201	0.1579	-0.1440	-0.1171
ea	Y	0.0954	-0.1479	0.1016	-0.4054	-0.1044
et	Z	-0.0775	0.0524	-0.2225	0.0096	-0.2191
hg	a	0.1093	-0.0725	-0.1309	0.0625	0.0376
ho	b	-0.1083	-0.1498	0.0838	-0.0895	0.3762
ve	c	0.0141	-0.2640	0.0194	-0.0966	0.0819
xs	d	0.0460	-0.0013	0.0023	-0.0009	-0.0410
al	e	0.2269	0.1771	-0.0272	-0.0247	-0.0160
at	f	0.0948	0.0680	-7.0E-0005	0.0396	0.0106
aw	g	0.0218	-0.1067	-0.0554	-0.1229	-0.1012
be	h	0.0717	-0.1126	0.1576	-0.0517	-0.0523
ce	i	-0.0112	-0.0361	0.0205	-0.0632	0.1511
el	j	0.1002	-0.0406	0.0123	0.0198	0.0430
ep	k	-0.0892	0.1177	-0.0096	-0.1104	0.0605
mp	l	0.2456	-0.0196	-0.0172	-0.0992	-0.0952
po	m	0.1140	-0.0022	-0.1347	-0.0072	-0.2612
sc	n	-0.0284	0.0970	-0.1687	-0.0257	0.2156
scr	o	0.1863	-0.0887	-0.0779	0.0893	0.2568
ai	p	-0.1278	-0.0392	-0.1706	-0.1668	0.0713
ac	q	-0.0397	0.1209	0.0982	-0.0523	-0.1141
ea	r	-0.0668	0.2876	-0.0169	-0.4168	-0.1185
aa	s	0.1130	-0.1885	-0.2575	0.0907	0.0093
ba	t	-0.0318	0.2481	0.2410	0.0158	0.0441
bb	u	0.2475	0.0863	0.1841	0.1678	0.0477
th	v	-0.0036	0.0816	-0.0414	0.0091	0.1981
ap	w	0.2094	0.2502	-0.2633	-0.1085	0.0849
bi	x	-0.2215	-0.0233	-0.1461	0.2493	-0.1570
bs	y	-0.0375	0.1382	0.1391	-0.1423	0.0075
em	z	-0.1562	-0.2212	-0.2278	-0.2545	0.0919
es	!	-0.3056	0.0645	0.0706	-0.1669	0.1915
kp	"	-0.0188	-0.3586	-0.0108	-0.0205	-0.0932
pa	#	-0.3211	0.0866	-0.0507	0.1618	-0.1410
po	$	-0.0080	-0.1384	0.1535	-0.0367	0.1011
sk	%	-0.1260	-0.0821	0.0649	-0.0064	0.0927
tl	&	0.1897	-0.1369	-0.2476	0.0876	-0.0306
tt	'	0.0806	0.0465	0.0186	-0.0696	-0.1324
op	(	0.0112	-0.0611	-0.2609	-0.0993	0.0672
ov	)	0.0705	0.1023	-0.2047	-0.2483	0.0303

	PLOT	AXIS 26	AXIS 27	AXIS 28	AXIS 29	AXIS 30
et	A	0.0836	0.0407	-0.0860	-0.0625	-0.0792
lt	B	-0.1479	0.2078	-0.0262	0.0448	0.0875
pg	C	-0.1894	-0.1545	-0.0751	-0.1091	0.1722
ye	D	0.0919	0.2216	0.0152	-0.0245	0.0719
xm	E	-0.0491	-0.0765	-0.0316	0.1134	0.0481

xs	F	-0.2211	0.1105	0.1160	0.0791	0.0326
za	G	-0.0428	0.0020	-0.1699	-0.1417	0.3292
zg	H	0.0495	0.0050	0.2727	0.0900	-0.1447
ba	I	-0.0964	0.1705	-0.0693	-0.0107	0.0082
cb	J	-0.0231	0.0140	-0.1643	0.1439	0.1155
cp	K	-0.1610	0.0893	0.0018	0.2930	-0.0747
hc	L	-0.2937	0.1268	0.0177	-0.0880	-0.1733
hg	M	0.0876	0.1161	-0.0450	0.2010	0.0281
hv	N	-0.0660	0.0720	-0.1262	-0.0727	0.0533
pn	O	0.0188	-0.1574	-0.0239	0.1378	-0.1840
sl	P	0.3364	-0.1713	-0.0049	0.3241	0.4530
se	Q	0.0809	0.0636	0.3217	-0.0047	-0.0094
ss	R	-0.0719	0.0767	0.3564	-0.0974	0.3192
ta	S	-0.0579	0.0083	0.0346	0.0124	0.0399
an	T	-0.1680	0.0982	-0.0330	0.2199	-0.0925
at	U	-0.0256	-0.0077	-0.0545	0.0509	-0.0931
bp	V	-0.0920	-0.0904	0.0195	0.0232	0.0269
bm	W	-0.0321	-0.3241	-0.0750	-0.2755	0.0835
ci	X	0.0756	0.0239	-0.0349	-0.0184	0.0991
ea	Y	-0.0322	-0.2612	0.0316	-0.0459	-0.1204
et	Z	0.0505	0.0694	0.1482	0.0055	0.3238
hg	a	-0.0402	0.1647	-0.0540	0.0623	0.0629
ho	b	-0.3651	0.0118	0.1061	-0.1358	0.1623
ve	c	0.1470	0.2548	-0.0092	-0.1511	-0.0396
xs	d	-0.1918	-0.0722	0.0164	0.1835	-0.0859
al	e	-0.1498	-0.1105	-0.3099	-0.1038	0.0369
at	f	-0.0534	0.0099	-0.0035	-0.0372	0.0477
aw	g	-0.0635	-0.0734	-0.1224	0.0735	0.0788
be	h	-0.1950	0.1147	-0.0821	0.0888	0.0930
ce	i	-0.0995	-0.0196	0.0475	0.0243	0.1399
el	j	0.0794	0.1952	0.1030	-0.1035	-0.0204
ep	k	0.1020	0.0706	0.0202	-0.2331	-0.0649
mp	l	0.1548	-0.0358	0.1970	-0.0002	0.0121
po	m	-0.0595	0.2134	-0.1039	-0.0850	-0.1912
sc	n	-0.1818	0.0496	0.1591	0.3570	0.0846
scr	o	0.0888	-0.1000	-0.1124	-0.0218	-0.0492
ai	p	-0.0432	-0.0670	0.0210	0.1267	-0.0329
ac	q	-0.0716	-0.0454	-0.1667	-0.0846	0.1484
ea	r	-0.0166	0.1398	-0.0483	0.1300	-0.0766
aa	s	-0.0674	0.0608	0.0326	-0.1421	0.0119
ba	t	-0.0441	0.1412	-0.0775	0.0941	0.0995
bb	u	0.0153	0.1292	0.1563	0.0158	0.0109
th	v	-0.0916	-0.0159	0.0095	-0.0891	-0.0541
ap	w	-0.0080	0.0098	0.0962	-0.0398	0.0079
bi	x	0.0203	-0.1176	-0.1473	0.0470	0.1141
bs	y	-0.2182	-0.1559	0.1960	-0.0751	-0.0614
em	z	0.2683	0.0833	0.1025	-0.0324	-0.0978
es	!	0.1802	0.2970	-0.2622	-0.1255	0.0461
kp	"	-0.0678	0.1125	0.0155	-0.0084	0.0773
pa	#	-0.0076	-0.0158	0.1886	-0.0497	0.1468
po	$	-0.1000	0.0467	-0.0146	-0.0550	-0.0219
sk	%	0.0138	0.1624	-0.2401	0.1980	0.0682
tl	&	-0.0153	0.0016	-0.1112	0.0706	-0.0236
tt	'	-0.0633	-0.0165	0.0041	-0.0234	0.0195
op	(	-0.0127	-0.1676	-0.0135	0.0136	-0.0057
ov	)	-0.1048	0.1747	0.0408	-0.2269	0.1919

	PLOT	AXIS 31	AXIS 32	AXIS 33	AXIS 34	AXIS 35
et	A	-0.0513	0.0345	0.0733	-0.0565	0.0041

lt	B	0.0079	-0.0195	0.2297	0.0903	-0.1141
pg	C	-0.0956	-0.0317	0.0746	-0.0832	-0.0030
ye	D	0.0860	-0.1493	-0.0526	0.0597	0.0610
xm	E	0.0077	0.0953	-0.0322	-0.0106	0.1120
xs	F	-0.1353	0.1715	0.1915	0.1843	-0.1718
za	G	0.2216	0.0932	0.2484	0.0556	0.2069
zg	H	-0.0081	-0.0585	-0.1068	0.0381	0.0204
ba	I	-0.1493	0.1287	-0.0701	0.0713	0.0584
cb	J	-0.0089	-0.1234	-0.1571	-0.1683	-0.1455
cp	K	0.0930	-0.1600	-0.0539	0.1779	0.1221
hc	L	0.0725	0.0699	0.1195	-0.2092	0.0200
hg	M	-0.0932	0.0671	0.1545	0.1453	-0.0242
hv	N	0.0782	-0.0750	-0.1148	0.1694	0.0572
pn	O	0.0347	-0.2868	0.2423	0.0854	0.0600
sl	P	-0.2310	0.1193	0.1170	0.1289	-0.0447
se	Q	-0.2501	-0.0068	0.1541	-0.0170	-0.0405
ss	R	0.0142	0.0792	0.0150	-0.0779	-0.0452
ta	S	-0.0094	-0.0873	0.0609	0.1265	0.0392
an	T	0.0458	0.1251	0.0955	-0.2275	-0.1127
at	U	0.0183	0.0440	0.1132	0.0332	0.0595
bp	V	-0.0325	-0.0487	-0.0076	-0.0281	-0.0740
bm	W	0.2713	0.0103	0.0986	0.4107	0.0233
ci	X	0.1176	-0.0346	0.0618	-0.0989	0.0401
ea	Y	0.0303	0.0047	-0.0454	0.0430	-0.2405
et	Z	0.2809	0.0473	-0.0663	-0.0482	-0.0095
hg	a	-0.0780	-0.0619	0.2402	-0.1248	-0.0684
ho	b	0.0153	-0.3494	-0.0660	0.0030	0.0461
ve	c	-0.0794	0.0409	-0.0914	0.0304	0.1744
xs	d	0.0426	0.1390	0.1153	0.0071	-0.0177
al	e	-0.2030	0.0609	-0.2217	-0.0112	-0.2998
at	f	-0.0955	-0.0571	0.2089	-0.1437	-0.1239
aw	g	-0.0437	0.1682	-0.3329	-0.1662	0.1146
be	h	-0.0193	0.1059	-0.0266	0.2379	0.0997
ce	i	-0.0653	-0.1096	0.0233	-0.0038	0.0117
el	j	0.0169	0.0313	-0.0948	0.0509	-0.0961
ep	k	-0.1614	0.1346	0.1452	0.1360	0.2660
mp	l	0.1597	-0.0674	0.0223	-0.0627	0.1346
po	m	0.1488	0.1563	0.0823	0.1860	0.0510
sc	n	0.1299	0.1509	-0.0946	-0.1039	0.2229
scr	o	0.3605	0.2446	0.2087	-0.2429	-0.0285
ai	p	0.1177	0.2327	0.0073	0.1116	-0.1212
ac	q	-0.0914	-0.0235	-0.0350	-0.1418	0.4344
ea	r	-0.0975	-0.1570	0.0716	0.1940	0.0030
aa	s	-0.2656	0.1236	0.0118	-0.0090	0.0795
ba	t	0.2055	0.0158	0.1196	0.0096	-0.1183
bb	u	0.2438	-0.1600	-0.1420	0.1148	-0.1053
th	v	-0.0649	0.2697	-0.0527	0.1630	-0.0359
ap	w	-0.0536	-0.1791	0.0991	-0.2504	0.1798
bi	x	-0.0460	-0.2121	0.2127	0.0291	-0.1170
bs	y	-0.0528	0.0724	0.1552	-0.0712	0.0568
em	z	0.1264	-0.0251	0.0069	0.0077	-0.1549
es	!	-0.0405	0.0146	0.1676	-0.1863	-0.1224
kp	"	-0.0857	-0.1356	0.0710	0.1085	0.0038
pa	#	-0.0602	0.2267	-0.0698	0.0685	-0.0848
po	$	0.1194	0.0010	0.0188	-0.0447	-0.0428
sk	%	0.0920	-0.0434	-0.1588	0.0375	0.0074
tl	&	-0.0948	-0.1189	-0.0392	0.1072	0.0853
tt	'	0.0417	-0.0517	0.1034	-0.0259	-0.0400
op	(	-0.0397	-0.1100	0.0349	-0.0436	-0.0735
ov	)	0.0498	-0.0718	-0.1356	-0.0004	-0.3110

	PLOT	AXIS 36	AXIS 37	AXIS 38	AXIS 39	AXIS 40
et	A	-0.0063	-0.0192	-0.0163	-0.0339	0.1098
lt	B	-0.0987	-0.0282	0.0952	0.0973	-0.1186
pg	C	-0.0391	0.0092	-0.0439	-0.0421	0.0346
ye	D	0.0314	0.0209	0.0549	0.0261	0.0047
xm	E	-0.0569	-0.0617	0.1364	-0.0028	0.1235
xs	F	-0.0791	-0.0910	0.0352	0.2331	0.0539
za	G	0.1049	-0.1523	-0.4478	-0.1254	0.2878
zg	H	-0.1620	0.1400	-0.0569	0.2483	0.4480
ba	I	-0.1876	-0.0209	-0.0375	-0.2704	0.1856
cb	J	-0.1788	0.0197	-0.1025	-0.0197	-0.1131
cp	K	-0.2221	-0.0702	0.0128	0.0121	-0.0753
hc	L	-0.0051	0.0367	-0.1298	0.0237	0.0360
hg	M	-0.1781	0.0546	0.1059	-0.1040	-0.0611
hv	N	0.0652	-0.3657	0.1050	0.0002	-0.0974
pn	O	0.1156	0.0076	-0.1455	0.0010	-0.0169
sl	P	0.0438	-0.0022	-0.0348	0.0880	-0.0845
se	Q	-0.2357	-0.0478	-0.3559	-0.0500	-0.0807
ss	R	0.1858	0.1471	0.3423	-0.0586	0.1153
ta	S	0.1831	-0.1787	0.0271	0.2406	0.0397
an	T	-0.0755	0.1494	-0.1736	-0.0962	-0.1205
at	U	0.0592	0.1576	-0.0412	-0.0285	-0.1351
bp	V	0.0426	0.2086	0.0307	-0.2468	-0.0120
bm	W	-0.3052	0.2359	0.0479	-0.0652	-0.0857
ci	X	-0.0121	-0.0594	-0.0614	-0.0891	0.1310
ea	Y	0.0195	0.0597	0.1207	0.1118	-0.0238
et	Z	-0.1596	-0.1319	0.0612	0.0824	-0.0245
hg	a	-0.1650	0.0950	0.1864	0.0335	0.2109
ho	b	-0.0989	-0.0882	0.0669	-0.1580	-0.0132
ve	c	-0.1902	0.0503	0.0663	0.0153	-0.2365
xs	d	0.1275	-0.0245	0.2227	-0.3665	0.0128
al	e	-0.0193	-0.0679	-0.0193	-0.0951	0.1380
at	f	-0.1331	0.0080	0.0531	0.1224	-0.0623
aw	g	-0.0420	-0.0859	-0.0111	0.1044	0.1346
be	h	0.0493	0.0670	0.0457	0.0837	0.0767
ce	i	-0.0500	-0.0322	0.0172	-0.0832	-0.0844
el	j	0.0351	0.0847	-0.0420	-0.2232	-0.2273
ep	k	0.1428	0.1971	-0.0579	-0.0569	0.0564
mp	l	0.0745	0.0368	0.0910	-0.0809	-0.0221
po	m	0.0129	0.0355	0.0959	0.1168	0.1041
sc	n	0.2059	0.1228	-0.0535	0.0315	-0.0908
scr	o	0.0236	-0.1579	0.0066	0.1078	-0.2358
ai	p	-0.2273	0.1460	-0.2025	0.0556	0.0249
ac	q	-0.2928	0.2146	0.0993	0.1642	-0.2349
ea	r	0.1010	-0.1838	-0.1258	-0.0929	-0.1522
aa	s	0.0967	-0.2430	-0.1200	0.0203	-0.1948
ba	t	0.0652	0.0736	0.0252	-0.1219	-0.0161
bb	u	-0.1320	-0.1790	-0.1451	0.1168	0.0179
th	v	-0.0202	-0.0924	0.0926	-0.0613	-0.1129
ap	w	-0.0898	-0.0275	-0.0282	-0.1615	0.0484
bi	x	0.0423	0.0668	0.0647	-0.0019	0.0208
bs	y	0.0662	-0.2159	0.1170	0.1536	-0.1351
em	z	-0.0753	-0.1149	0.1188	-0.2775	0.0423
es	!	-0.0266	-0.0637	0.1786	0.1374	0.1148
kp	"	0.1048	0.0874	0.0067	-0.0005	0.0657
pa	#	-0.0704	-0.1185	-0.0824	-0.1963	0.0277
po	$	-0.0367	0.0404	-0.0978	0.0116	0.1166
sk	%	0.0827	0.0490	0.0086	-0.0671	-0.0359

tl	&	0.2116	0.1452	0.0022	0.0496	0.0589
tt	'	-0.0627	-0.0150	0.0957	-0.0408	-0.0137
op	(	-0.0550	-0.1149	-0.0181	0.0373	0.0059
ov	)	0.2438	0.3335	-0.2459	0.1877	-0.2038
	PLOT	AXIS 41	AXIS 42	AXIS 43	AXIS 44	AXIS 45
et	A	-0.0551	0.1371	0.0758	0.0648	0.0593
lt	B	-0.0014	0.0184	-0.0400	0.0490	0.0803
pg	C	0.0408	-0.0147	-0.1607	-0.0784	0.1000
ye	D	0.0341	0.0821	-0.0812	0.0162	-0.0291
xm	E	-0.0565	-0.0515	-0.0062	-0.0261	0.1619
xs	F	0.0067	-0.0906	0.0116	-0.0324	0.0692
za	G	0.0776	0.3090	0.1436	0.0524	-0.2707
zg	H	0.0657	0.1590	0.0366	-0.1129	-0.0400
ba	I	-0.1353	-0.3069	-0.0585	-0.0624	-0.1167
cb	J	0.2027	0.0401	0.0159	0.1957	0.0507
cp	K	-0.0035	0.1085	0.1108	-0.0505	0.0517
hc	L	-0.1634	0.0780	-0.1014	-0.1942	0.2748
hg	M	0.0210	0.0649	-0.3888	0.1108	-0.3117
hv	N	0.0335	-0.1235	-0.0567	-0.3613	-0.0158
pn	O	0.0532	-0.1862	0.1174	0.0451	-0.0796
sl	P	-0.0080	0.0659	-0.0023	-0.1292	0.2104
se	Q	-0.0188	0.0691	0.1594	-0.1635	-0.1776
ss	R	-0.1434	0.0988	0.1125	0.2553	-0.0254
ta	S	0.0541	-0.0233	-0.0512	-0.2009	0.0848
an	T	-0.0890	0.0124	-0.1580	-0.0398	-0.0036
at	U	0.1290	-0.1203	-0.1153	0.0689	-0.0627
bp	V	-0.0499	0.2482	0.0666	0.0801	0.1263
bm	W	-0.2720	0.0326	-0.0632	0.0329	0.0290
ci	X	-0.0221	-0.1991	0.1017	0.0418	0.0822
ea	Y	-0.0036	-0.0240	-0.0799	-0.0043	-0.3265
et	Z	0.0376	-0.1162	0.0387	-0.2265	-0.0371
hg	a	0.0828	-0.0969	0.2129	0.1437	0.0798
ho	b	0.1455	-0.1554	0.0400	0.1228	-0.1080
ve	c	0.1824	0.0880	0.2929	-0.1367	0.0715
xs	d	0.4637	0.2920	-0.0611	-0.2134	-0.0406
al	e	-0.1073	0.0569	0.1641	-0.1491	0.0571
at	f	-0.1009	0.0130	0.1490	-0.0271	-0.1366
aw	g	0.1018	-0.0418	-0.0712	0.1944	-0.1237
be	h	-0.0256	0.0013	-0.0244	0.0648	0.0238
ce	i	0.0818	-0.0155	-0.1125	0.0130	-0.0581
el	j	-0.1585	-0.0364	0.1062	-0.1683	-0.3015
ep	k	0.1990	-0.1322	-0.1749	-0.0195	0.1703
mp	l	0.0539	-0.1128	-0.0778	-0.0635	0.0352
po	m	0.0216	-0.0559	0.1652	0.1109	-0.1082
sc	n	-0.3272	-0.0309	0.0518	-0.1251	-0.1653
scr	o	0.0370	-0.1330	0.0323	0.1274	0.0622
ai	p	0.2271	-0.1165	0.0117	0.0007	0.0466
ac	q	-0.0369	0.1668	-0.0184	-0.0358	0.0223
ea	r	-0.1677	-0.0014	0.1566	0.3140	0.2051
aa	s	-0.1010	0.1371	-0.2213	0.1643	-0.0406
ba	t	0.0193	-0.0472	0.1312	-0.0777	0.0348
bb	u	0.0619	0.2573	-0.2885	0.2097	0.0963
th	v	0.0528	0.1728	0.1979	-0.0239	0.0660
ap	w	0.0179	-0.0804	-0.0587	-0.0667	0.1185
bi	x	-0.0778	-0.0293	0.0433	-0.0976	-0.0213
bs	y	-0.0312	0.1440	0.0690	0.0848	-0.0609
em	z	-0.1488	0.2074	-0.0775	-0.0372	0.1845
es	!	-0.0480	0.0714	-0.1885	-0.0606	-0.1942

kp	"	-0.0572	-0.0877	-0.1999	-0.0436	-0.0056
pa	#	0.0308	-0.2888	-0.0674	0.1306	0.1304
po	$	-0.2336	0.0687	-0.2013	-0.1539	0.2007
sk	%	-0.0964	0.0281	0.0285	0.0331	-0.0046
tl	&	-0.0253	0.0792	0.0136	-0.0777	-0.0160
tt	'	0.1365	0.0233	-0.0592	-0.1215	0.0293
op	(	-0.1015	0.0263	-0.0194	-0.1123	-0.1081
ov	)	0.2079	-0.0063	-0.0120	-0.0621	0.0685

	PLOT	AXIS 46	AXIS 47	AXIS 48	AXIS 49	AXIS 50
et	A	-0.0244	0.1378	0.0470	-0.0350	0.0430
lt	B	-0.0869	0.0494	-0.0522	-0.1498	0.0438
pg	C	0.0173	0.0117	-0.0221	-0.1389	0.1067
ye	D	-0.0740	-0.0705	-0.0181	0.0764	0.0615
xm	E	-0.1191	0.1029	-0.0150	-0.0249	0.0391
xs	F	-0.0506	0.1567	-0.0436	-0.0394	-0.2347
za	G	-0.0451	-0.0790	-0.0665	0.0751	-0.1176
zg	H	-0.2513	0.0286	-0.0700	-0.1637	0.0055
ba	I	-0.0371	-0.1591	-0.2789	0.1447	-0.0622
cb	J	0.1514	-0.2163	-0.3629	-0.1875	-0.1015
cp	K	0.1234	-0.0984	-0.0973	0.1235	-0.1170
hc	L	0.0466	-0.1862	-0.1046	-0.0351	-0.0489
hg	M	-0.1208	-0.0605	0.3759	-0.1926	-0.1523
hv	N	-0.1122	-0.1466	-0.1316	-0.2749	0.1713
pn	O	-0.2200	-0.2031	-0.0206	-0.3736	0.2838
sl	P	0.0507	-0.0711	-0.2117	-0.0175	0.0574
se	Q	0.0953	0.0644	0.0950	-0.0267	0.1387
ss	R	-0.1213	-0.3080	-0.0891	-0.1270	-0.0102
ta	S	0.0511	-0.0329	0.1552	0.0917	0.2504
an	T	-0.1513	-0.1339	0.0977	0.2303	0.3003
at	U	0.0950	-0.0248	-0.0407	0.0294	-0.0593
bp	V	0.0814	0.1639	0.0276	-0.2209	0.1532
bm	W	0.2087	-0.0940	0.0190	0.0186	0.1814
ci	X	-0.0731	0.1700	0.1940	-0.0239	0.0277
ea	Y	-0.0733	-0.0950	-0.0942	0.1811	-0.0767
et	Z	0.0813	0.1102	0.2137	0.1112	-0.0449
hg	a	0.1137	-0.0733	0.0964	0.0085	0.2099
ho	b	-0.0580	0.1629	0.1114	-0.0015	0.0316
ve	c	0.0413	-0.2516	0.1958	-0.1303	-0.0996
xs	d	-0.0354	0.0755	-0.0291	0.0608	0.0003
al	e	0.0358	0.1411	0.1010	-0.0731	0.0630
at	f	0.0719	-0.1030	0.0034	0.1670	0.0762
aw	g	0.2384	-0.1198	0.2296	-0.2170	0.1954
be	h	0.0170	0.0143	0.0203	-0.0589	-0.0150
ce	i	-0.0116	-0.0211	0.0993	0.0763	0.1002
el	j	0.0478	0.0897	-0.1421	-0.2852	-0.0146
ep	k	0.2328	0.0079	0.0074	-0.0825	0.0047
mp	l	0.0267	-0.0669	-0.0163	0.0914	0.0253
po	m	-0.0216	0.1615	-0.2162	-0.0358	0.1626
sc	n	0.1957	0.1444	0.0046	-0.0773	0.1744
scr	o	-0.1564	0.0156	-0.0120	-0.0795	-0.0326
ai	p	0.0247	0.0722	-0.0197	-0.1266	0.1041
ac	q	-0.3894	0.2626	-0.1277	0.0168	0.0230
ea	r	0.0349	0.0574	0.1301	0.1211	-0.0773
aa	s	-0.1282	0.0828	-0.0340	-0.0617	0.0614
ba	t	-0.0397	0.0371	0.0209	-0.0882	-0.0818
bb	u	0.0707	-0.0005	-0.0887	0.0162	0.1910
th	v	-0.1518	-0.3257	0.1152	0.2173	0.2470
ap	w	0.0306	-0.1001	-0.1036	0.0606	0.0265

bi	x	-0.0675	0.0036	0.0784	-0.0500	-0.1059
bs	y	0.2387	0.0047	-0.0692	-0.1684	-0.1000
em	z	-0.0664	0.1913	-0.0666	-0.0625	0.1376
es	!	0.1532	0.0070	-0.0761	-0.0039	0.2139
kp	"	0.1116	0.0634	-0.1457	0.1165	0.0534
pa	#	-0.2454	-0.0229	-0.0408	-0.0077	0.0655
po	$	-0.0409	-0.2447	0.2690	-0.2196	-0.3060
sk	%	-0.0375	-0.0269	-0.0108	0.0226	-0.0541
tl	&	-0.1152	-0.1035	0.1022	0.0589	0.0558
tt	'	0.2259	0.0998	-0.0333	-0.0190	-0.0865
op	(	-0.1061	-0.0805	-0.0785	-0.0112	-0.0658
ov	)	-0.1182	0.0444	0.0246	0.0467	0.0249

	PLOT	AXIS 51	AXIS 52	AXIS 53	AXIS 54	AXIS 55
et	A	0.0178	-0.0590	-0.1127	-0.0669	0.0361
lt	B	-0.0339	0.0435	-0.0918	-0.0050	0.0162
pg	C	-0.0292	-0.0268	-0.0243	-0.0676	0.0093
ye	D	0.0365	0.0377	0.0647	0.0069	0.0251
xm	E	0.1735	-0.1854	-0.1598	-0.0585	0.0635
xs	F	-0.1660	0.0566	-0.0054	-0.0105	0.0872
za	G	-0.0851	-0.0308	0.1000	0.0733	0.0224
zg	H	-0.1325	-0.1015	-0.0706	-0.1045	0.0895
ba	I	-0.0253	0.0490	0.1646	0.0834	0.1416
cb	J	0.2605	-0.3347	0.0523	-0.0500	0.0945
cp	K	-0.0198	0.0264	-0.0513	0.0695	0.0395
hc	L	-0.0022	0.1516	-0.0128	-0.0047	-0.0098
hg	M	0.1319	-0.1123	0.1248	0.0017	0.0672
hv	N	-0.1313	-0.1156	0.2090	-0.0766	-0.0461
pn	O	0.0341	0.2161	-0.0371	0.1341	-0.2110
sl	P	-0.0272	0.1688	-0.0072	-0.0587	0.0109
se	Q	0.1732	-0.0770	0.1380	-0.1588	0.0258
ss	R	-0.0091	-0.0569	-0.0976	-0.0914	0.0913
ta	S	0.1896	-0.1531	0.1075	0.2128	0.5411
an	T	-0.2480	-0.1176	-0.0903	-0.1300	0.0849
at	U	-0.1325	0.0604	0.1479	-0.2716	0.1725
bp	V	0.0029	0.0016	0.1332	0.4810	0.2392
bm	W	0.0232	-0.0339	-0.0985	-0.1895	-0.0019
ci	X	0.1534	-0.1032	-0.1352	-0.0575	0.0641
ea	Y	0.0161	0.0532	0.2444	0.2208	-0.0255
et	Z	-0.0616	0.1596	-0.0013	0.1151	-0.1558
hg	a	-0.0598	0.0083	0.4368	-0.0186	-0.2966
ho	b	0.1886	0.0844	0.0180	-0.1907	0.1259
ve	c	-0.0666	-0.0562	-0.1015	0.0270	-0.0277
xs	d	0.1536	0.2091	-0.1461	-0.0648	-0.1107
al	e	0.0115	-0.0627	-0.0159	-0.0289	-0.1799
at	f	0.0504	0.2221	-0.2000	0.2665	0.1104
aw	g	-0.2884	0.3691	-0.0253	-0.0876	0.2653
be	h	0.0569	-0.0340	-0.1238	0.0111	-0.1015
ce	i	-0.4570	-0.4783	-0.2108	0.3153	-0.1813
el	j	-0.0871	0.1366	-0.2217	0.0483	0.1215
ep	k	-0.0293	-0.0489	0.0071	0.1225	0.0052
mp	l	0.1001	-0.0320	-0.0412	0.0366	-0.0502
po	m	-0.0104	-0.0634	-0.0742	0.0234	0.0327
sc	n	0.1696	-0.1329	0.1153	-0.0738	-0.1653
scr	o	-0.0108	-0.0863	0.0404	-0.0027	0.1141
ai	p	0.1148	0.0074	-0.1025	0.1326	0.0025
ac	q	0.0105	0.1495	0.1717	0.0993	0.0182
ea	r	-0.0172	0.0998	-0.0402	0.0080	0.0733
aa	s	0.0368	-0.0049	-0.0418	-0.0730	-0.1133

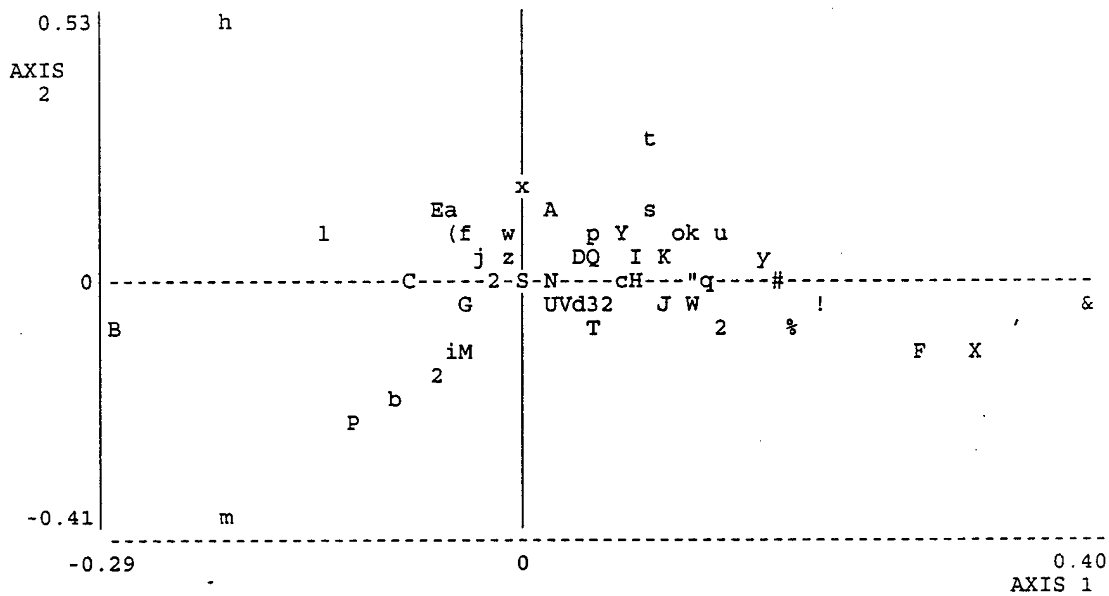
ba	t	-0.1080	-0.0022	0.0446	-0.0656	0.1479
bb	u	-0.0127	0.1485	-0.0670	-2.0E-0005	-0.1454
th	v	0.1440	-0.0119	0.0689	-0.0871	0.0351
ap	w	-0.0493	0.0618	-0.1288	-0.0282	0.0558
bi	x	-0.1356	0.0404	-0.0672	-0.2159	0.0478
bs	y	-0.0821	-0.0522	0.1138	0.0240	-0.0926
em	z	-0.1919	0.0181	0.2953	-0.0703	0.1188
es	!	0.2349	0.0256	-0.2007	0.0211	-0.0632
kp	"	0.0117	0.0494	0.0353	0.0174	-0.0452
pa	#	0.0751	0.1120	-0.0445	0.1817	-0.0991
po	$	0.1895	0.0687	0.0881	0.1376	-0.0812
sk	%	0.0002	0.0614	0.0101	0.1382	-0.0402
tl	&	-0.0540	-0.0028	-0.0672	-0.0838	-0.0158
tt	'	-0.0992	-0.0374	0.0022	-0.0300	0.0616
op	(	0.0289	-0.0247	-0.1697	0.0027	0.1336
ov	)	0.0159	0.0197	0.0972	-0.0673	-0.0093

	PLOT	AXIS 56	AXIS 57	AXIS 58	AXIS 59	AXIS 60
et	A	0.0231	0.0542	0.0817	-0.0698	-0.0104
lt	B	0.0324	0.0388	0.0133	-0.0323	-0.0425
pg	C	-0.0066	0.0587	0.0200	-0.0420	-0.1135
ye	D	0.0216	-0.1108	-0.0721	-0.1094	0.0059
xm	E	-0.0028	-0.0022	0.0877	-0.1459	0.0246
xs	F	0.0947	-0.0084	-0.0789	0.0040	0.0957
za	G	-0.0285	0.1082	0.0238	0.0773	0.0498
zg	H	-0.1408	-0.0172	0.0621	0.0310	0.1121
ba	I	-0.0586	-0.1995	-0.0938	-0.1223	-0.2471
cb	J	0.1815	0.0799	0.0430	0.0675	0.0196
cp	K	-0.0205	0.0226	-0.0263	-0.1685	-0.1173
hc	L	0.0076	-0.0020	-0.0080	-0.0210	0.0004
hg	M	-0.0507	0.1641	-0.0371	0.0104	0.0142
hv	N	-0.2464	-0.0560	0.0309	0.0734	0.4031
pn	O	0.0974	0.0674	0.0357	-0.1398	-0.2654
sl	P	-0.0592	0.0616	-0.0543	-0.0285	-0.0334
se	Q	0.0295	-0.2776	-0.0141	-0.1242	-0.0538
ss	R	-0.0333	-0.0301	0.0627	0.0734	-0.1107
ta	S	0.1204	-0.0180	0.0110	0.2784	-0.3012
an	T	-0.1555	0.3061	-0.2313	0.0708	-0.0267
at	U	-0.1461	-0.0211	0.7638	-0.1159	-0.0702
bp	V	-0.3123	-0.0329	-0.0282	-0.3756	0.1918
bm	W	-0.0864	-0.1936	-0.0998	0.1307	-0.0194
ci	X	0.1070	-0.0071	0.0768	-0.0005	0.0568
ea	Y	0.0146	0.0524	-0.0429	-0.0303	-0.0718
et	Z	-0.0086	0.1827	0.1105	-0.2884	-0.1228
hg	a	0.0542	-0.0557	-0.0426	0.1923	0.1037
ho	b	-0.1064	0.2005	-0.0866	0.0085	0.0389
ve	c	-0.2992	0.0376	-0.0215	0.1188	-0.2281
xs	d	0.0189	-0.3066	-0.0308	0.1988	-0.0861
al	e	-0.0306	0.1766	0.1643	0.1018	-0.2584
at	f	-0.1522	0.0811	0.2966	0.2984	0.1981
aw	g	0.1439	-0.2056	-0.0801	-0.0276	0.0408
be	h	-0.0515	0.0670	0.0208	-0.0764	-0.0849
ce	i	0.2383	-0.2969	0.1704	-0.0159	-0.0278
el	j	0.3476	0.1444	-0.0059	0.1510	0.1167
ep	k	0.1054	0.2668	-0.0989	0.0051	-0.0274
mp	l	-0.0369	0.0186	0.0032	0.0256	0.1237
po	m	0.0009	-0.0226	0.0179	-0.0862	-0.1133
sc	n	-0.0163	-0.0420	0.0624	0.0760	-0.0291
scr	o	-0.0715	-0.1210	-0.1045	-0.0175	-0.0159

ai	p	0.0025	-0.0075	0.0328	0.1478	0.2169
ac	q	0.2109	-0.0512	0.0537	0.1010	-0.0267
ea	r	-0.0363	-0.2047	0.0103	0.0880	0.1390
aa	s	-0.1379	-0.0519	-0.0088	-0.0062	-0.0217
ba	t	0.1002	-0.0269	-0.0574	-0.0782	-0.0938
bb	u	0.0581	0.0934	0.0787	0.0349	-0.1192
th	v	0.3848	0.1658	0.1140	-0.3422	0.2567
ap	w	0.0292	0.0296	-0.0098	-0.0613	0.0397
bi	x	0.1170	-0.0701	-0.1067	-0.1017	0.0074
bs	y	-0.0054	0.1124	-0.0545	-0.0280	-0.0984
em	z	0.0952	0.0845	0.1192	0.1328	-0.1576
es	!	-0.0800	-0.1591	0.0062	-0.2037	0.0020
kp	"	0.1145	0.0645	0.0442	0.0351	0.1941
pa	#	-0.1226	-0.0178	0.1046	0.1106	-0.0546
po	$	0.1737	-0.1632	0.1412	0.0354	0.0401
sk	%	-0.0548	0.0246	0.0053	0.1099	-0.0056
tl	&	-0.0473	0.0522	0.0337	0.0290	0.0676
tt	'	-0.0299	0.0785	-0.0114	-0.0635	0.0591
op	(	-0.0696	-0.0257	0.0247	-0.0820	-0.0421
ov	)	-0.0616	-0.1960	-0.0539	-0.0911	-0.0541

	PLOT	AXIS 61
et	A	-0.0647
lt	B	-0.0113
pg	C	0.0648
ye	D	0.0137
xm	E	0.0970
xs	F	-0.0323
za	G	0.0637
zg	H	0.0522
ba	I	-0.1068
cb	J	-0.1074
cp	K	0.0191
hc	L	0.0765
hg	M	-0.0704
hv	N	-0.0613
pn	O	-0.1271
sl	P	0.0561
se	Q	-0.0737
ss	R	0.0303
ta	S	0.1948
an	T	0.0674
at	U	0.2074
bp	V	0.0939
bm	W	0.0054
ci	X	-0.0739
ea	Y	0.1688
et	Z	0.0605
hg	a	0.3128
ho	b	-0.0086
ve	c	0.0437
xs	d	-0.0114
al	e	0.0580
at	f	-0.4630
aw	g	-0.1261
be	h	-0.0680
ce	i	-0.0361
el	j	0.3978
ep	k	-0.1197

mp	l	-0.0212
po	m	-0.0825
sc	n	-0.1052
scr	o	0.0413
ai	p	0.0962
ac	q	0.0223
ea	r	0.1897
aa	s	0.0232
ba	t	-0.1578
bb	u	0.0739
th	v	-0.0639
ap	w	0.1213
bi	x	-0.0076
bs	y	-0.0355
em	z	-0.2913
es	!	0.1447
kp	"	-0.1034
pa	#	0.0718
po	$	-0.0039
sk	%	-0.0266
tl	&	0.0477
tt	'	-0.0284
op	(	0.0602
ov	)	-0.1437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AXIS 2
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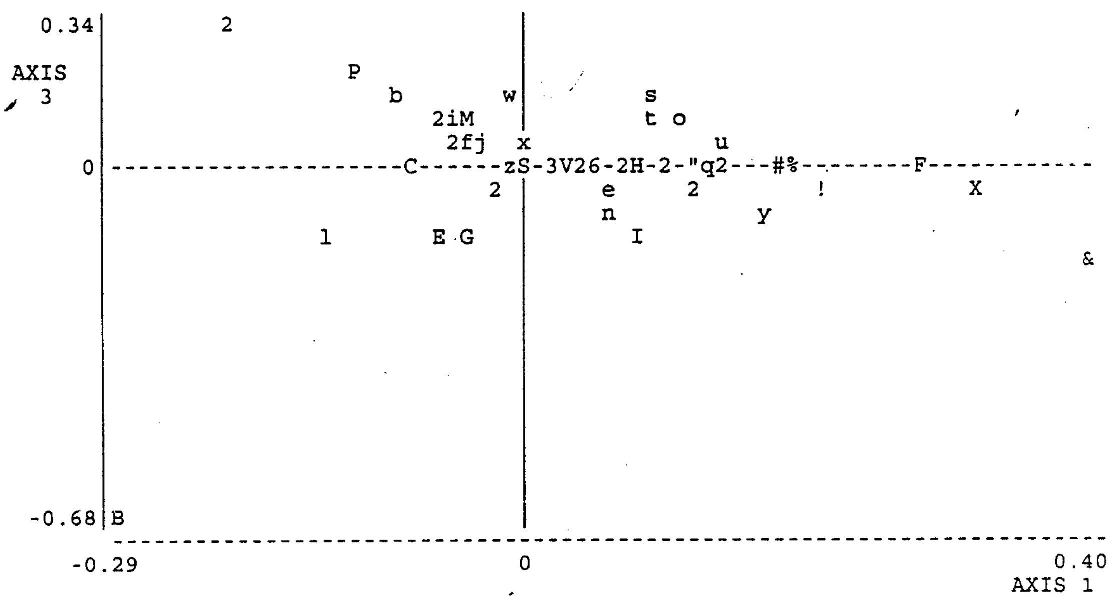
-0.29
0
0.40
AXIS 1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AXIS 3
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-0.29
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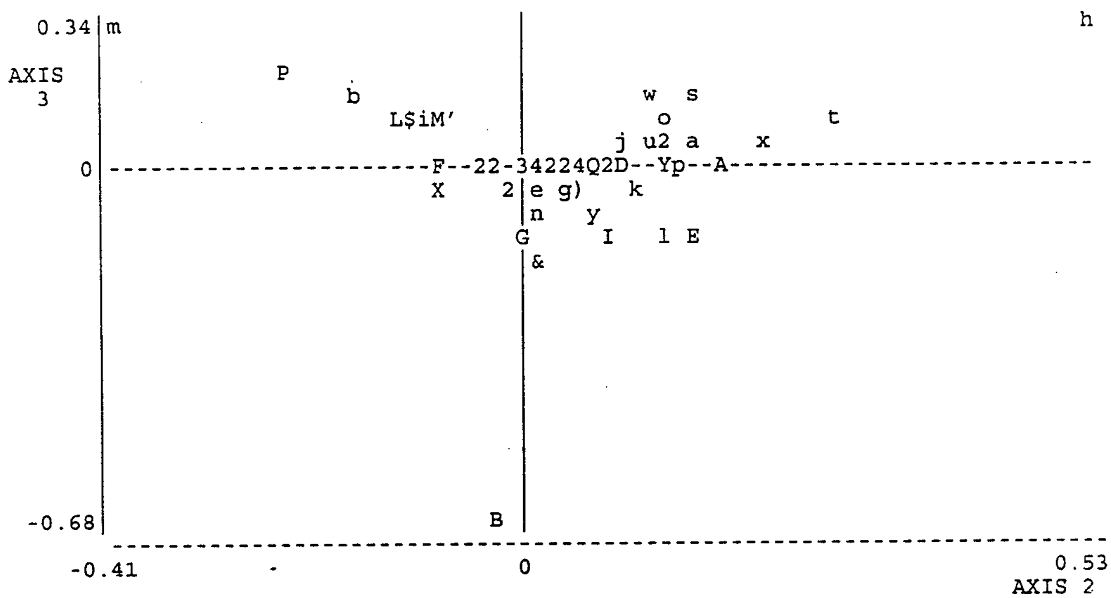
0.40
AXIS 1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AXIS
3
0
-0.68
-0.41
0
0.53
AXIS 2

PRINCIPAL COMPONENT SCORES

	PLOT	AXIS 1	AXIS 2	AXIS 3	AXIS 4	AXIS 5
1	A	-0.3442	-0.5142	0.2912	-0.1384	0.0053
2	B	-0.4140	-0.5766	0.3563	-0.1726	-0.0017
3	C	-0.4499	-0.5560	0.3757	-0.2016	0.0040
4	D	-0.4601	-0.5896	0.3761	-0.1845	-0.0119
5	E	-0.4592	-0.5733	0.3915	-0.2103	0.0006
6	F	-0.3792	-0.6057	0.4519	-0.1858	0.0899
7	G	-0.3835	-0.3949	0.2906	-0.1642	-0.0185
8	H	-0.2726	-0.3331	0.1862	0.3480	-0.6525
9	I	-0.0591	-0.0615	0.0139	0.4195	-0.3370
10	J	-0.1366	-0.0454	0.0022	0.3729	-0.4562
11	K	0.0329	0.0012	-0.0386	0.1908	-0.3626
12	L	0.2563	-0.0600	-0.0810	0.0618	-0.2282
13	M	0.0431	0.0681	0.0176	0.1199	-0.2193
14	N	0.0693	-0.1625	-0.0404	0.1704	-0.0483
15	O	0.0928	-0.0393	-0.0045	0.1483	-0.0692
16	P	0.2729	-0.1123	-0.0611	0.0104	-0.0798
17	Q	0.1362	-0.0679	-0.0280	0.1720	0.0135
18	R	0.2827	-0.1447	-0.0434	0.1257	-0.0314
19	S	0.2064	-0.1338	-0.0209	0.1582	-0.0114
20	T	0.2017	-0.0428	0.0286	0.1767	0.0425
21	U	0.1680	-0.1022	0.0027	0.2069	0.0299
22	V	0.1566	-0.0719	0.0303	0.3010	0.0668
23	W	0.3655	-0.1028	0.0184	0.1682	0.0986
24	X	0.1997	-0.1068	-0.0081	0.2773	-0.0416
25	Y	0.1713	-0.0431	0.0337	0.1922	0.1068
26	Z	0.2469	-0.1340	0.0552	0.2328	0.1421
27	a	0.2077	0.0441	0.0735	0.2191	0.1013
28	b	0.1616	0.0657	0.0874	0.2277	0.0757
29	c	0.1942	0.0072	0.0576	0.2572	0.0390
30	d	0.2855	-0.1198	0.0433	0.1948	0.0802
31	e	0.2868	-0.0527	0.0531	0.1402	0.1995
32	f	0.3290	-0.0205	0.0401	0.0709	0.0936
33	g	0.2178	0.0564	0.1365	0.1408	0.2080
34	h	0.4266	-0.0745	0.0090	0.0715	0.1105
35	i	0.1961	0.0067	0.0825	0.1591	0.2216
36	j	0.2900	-0.0469	0.0921	0.0621	0.1845
37	k	0.2087	-0.0289	0.0757	0.0224	0.2412
38	l	0.3515	-0.0395	0.0442	0.0268	0.2142
39	m	0.2055	-0.0482	0.0727	0.0618	0.2147
40	n	0.3207	-0.1145	-0.0019	0.0495	0.1679
41	o	0.2635	-0.1150	0.0312	0.0948	0.1263
42	p	0.3482	-0.1602	-0.0152	0.0257	0.1001
43	q	0.3253	-0.1107	-0.0106	-0.1183	0.1091
44	r	0.4473	-0.0687	0.0107	-0.0714	0.0439
45	s	0.2806	0.0215	0.0718	-0.0548	-0.0402
46	t	0.3652	0.1019	0.0645	-0.2173	-0.1331
47	u	0.2952	0.0464	0.0053	-0.2455	-0.1467
48	v	0.4701	-0.0301	-0.0198	-0.2643	-0.0339
49	w	0.2203	0.0217	-0.0009	-0.2088	-0.0738
50	x	0.3101	0.0724	-0.1300	-0.2720	-0.0881
51	y	0.3394	0.1135	-0.0242	-0.4055	-0.1505
52	z	0.2436	0.0843	0.0081	-0.2206	-0.0937
53	!	0.3276	0.1025	-0.0050	-0.3573	-0.2673

54	"	0.4256	0.0210	-0.1127	-0.3695	-0.0965
55	#	0.3444	0.0944	-0.0047	-0.3106	-0.1095
56	$	0.2493	0.0855	-0.1080	-0.3340	-0.1756
57	%	0.1930	0.1267	-0.0162	-0.3355	-0.0314
58	&	0.0486	-0.0586	-0.3677	-0.3217	-0.0253
59	'	-0.0138	0.1027	-0.2568	-0.3005	-0.1876
60	(	-0.1908	0.0461	-0.4653	-0.1927	-0.1230
61	)	-0.2435	-0.0397	-0.2878	-0.0070	-0.0505
62	*	-0.1572	-0.1071	-0.4030	-0.0983	-0.1086
63	+	-0.2837	-0.1307	-0.4162	-0.0256	0.0911
64	,	-0.4091	-0.1321	-0.4945	0.0021	0.1613
65	-	-0.3196	-0.1177	-0.3381	0.0511	0.1436
66	.	-0.3514	-0.0862	-0.4434	0.1056	0.0574
67	/	-0.3899	-0.0990	-0.4449	0.0230	0.1101
68	:	-0.3706	-0.1082	-0.3619	0.0215	0.0812
69	;	-0.3427	-0.1133	-0.3415	0.0459	0.1341
70	<	-0.3932	-0.1118	-0.4576	-0.0072	0.1611
71	=	-0.4066	-0.0759	-0.5440	-0.0125	0.0696
72	>	-0.4270	0.1623	-0.2472	0.1544	-0.0479
73	?	-0.1316	0.3015	0.0843	0.2662	-0.2522
74	@	-0.1137	0.2607	0.0472	-0.1753	-0.0092
75	[	-0.1448	0.3259	0.0870	-0.0152	0.0347
76	\	-0.2618	0.3949	0.1407	0.2021	-0.1957
77	]	-0.2013	0.3876	0.1842	-0.0362	0.1135
78	^	-0.2299	0.4362	0.2338	0.0249	0.0972
79	_	-0.2454	0.3385	0.0608	0.0836	0.0009
80	`	-0.1859	0.3522	0.1777	-0.0718	0.1816
81	{	-0.2487	0.3979	0.1254	0.0999	-0.0716
82	|	-0.3282	0.4115	0.2048	0.0727	0.0193
83	}	-0.3064	0.3056	0.1975	0.0156	0.0572
84	A	-0.3949	0.2426	0.0951	-0.1023	0.1725
85	B	-0.2676	0.4474	0.2838	-0.1792	0.0393
86	C	-0.3604	0.3642	0.0991	-0.0967	0.0720
87	D	-0.3092	0.5259	0.2459	-0.0558	-0.0284
88	E	-0.4135	0.3775	0.0658	0.0107	0.0740
89	F	-0.2806	0.4623	0.3303	-0.1159	0.1068

	PLOT	AXIS 6	AXIS 7	AXIS 8	AXIS 9	AXIS 10
1	A	-0.1178	0.0103	0.0457	0.0470	0.0290
2	B	-0.1001	-0.0234	0.0510	0.0440	-0.0409
3	C	-0.0494	-0.0064	0.0057	0.0254	-0.0621
4	D	-0.0682	-0.0436	0.0562	0.0271	-0.0831
5	E	-0.0301	-0.0095	-0.0043	0.0216	-0.0614
6	F	0.0790	-0.0723	0.0100	0.0260	-0.0976
7	G	0.0385	0.0606	-0.1098	-0.0299	0.0971
8	H	0.3690	-0.2160	-0.0603	-0.1133	0.2592
9	I	0.1687	-0.0312	-0.0617	-0.0740	0.1956
10	J	0.2742	0.0751	0.0638	-0.0269	-0.1072
11	K	-0.0597	0.0379	0.1336	0.0922	-0.1331
12	L	-0.2399	0.0595	-0.0428	0.0245	-0.0144
13	M	-0.1606	-0.0290	-0.0246	0.1601	0.0008
14	N	-0.2043	0.1399	-0.0704	-0.0870	-0.0132
15	O	-0.1355	0.1381	0.0228	-0.1329	0.0087
16	P	-0.2589	0.1026	0.0287	-0.0725	0.0852
17	Q	-0.1937	0.0781	-0.0035	-0.1623	-0.0102
18	R	-0.1000	0.0426	0.0621	-0.0143	0.1644
19	S	-0.2341	0.2371	0.0322	-0.1213	-0.0068
20	T	-0.1907	0.1619	0.0772	-0.0085	-0.0920
21	U	-0.2147	0.1483	0.0048	-0.0400	0.0277

22	V	-0.3424	0.0425	-0.0650	0.0681	0.0949
23	W	-0.0901	0.0489	0.0033	-0.0283	0.0504
24	X	-0.0943	0.1229	0.1062	-0.0008	-0.0744
25	Y	-0.3585	0.0091	0.0283	0.1510	0.1098
26	Z	-0.0664	0.0762	-0.0960	-0.0125	0.0603
27	a	-0.0689	0.0103	0.0207	0.1199	-0.0401
28	b	0.0414	-0.0962	-0.1252	0.1650	-0.0304
29	c	0.1882	-0.0675	0.0390	0.0873	-0.1350
30	d	0.0728	-0.0639	0.0204	0.0444	0.0242
31	e	-0.0223	-0.0702	0.0275	0.1174	-0.0126
32	f	0.0522	-0.0181	-0.1516	0.0030	-0.0047
33	g	0.1042	-0.0552	-0.0070	0.1002	0.0834
34	h	0.1648	-0.1177	0.0052	0.0455	-0.0091
35	i	0.1695	-0.0731	0.0260	0.1587	-0.1030
36	j	0.1556	-0.1135	0.0416	0.1452	0.1094
37	k	0.1522	-0.1039	0.0419	0.0821	-0.0106
38	l	0.1707	-0.0652	0.0008	-0.0273	0.0047
39	m	0.2020	-0.0742	0.0293	-0.0990	-0.0065
40	n	0.1851	-0.1336	0.0214	-0.1337	-0.0358
41	o	0.1379	-0.0102	0.0432	-0.1542	-0.0391
42	p	0.1861	-0.0398	0.0616	-0.0622	-0.0124
43	q	0.1535	0.0428	0.0220	-0.0582	-0.0870
44	r	0.1436	-0.0691	0.0739	0.0649	0.1192
45	s	0.1608	0.1712	0.0089	-0.1100	-0.0674
46	t	0.1843	0.0852	-0.1290	0.0706	-0.2066
47	u	-0.0378	0.2267	-0.1434	-0.0179	-0.2097
48	v	-0.0293	0.0652	-0.0433	-0.1369	-0.0801
49	w	-0.0003	0.0596	-0.1837	-0.3605	0.0957
50	x	0.1261	0.1343	-0.1700	-0.0051	-0.1397
51	y	-0.0557	0.0135	-0.1219	0.1252	-0.1063
52	z	0.0907	0.0688	0.0240	-0.0814	-0.0376
53	!	0.0495	0.1371	0.0194	0.0528	0.0702
54	"	0.1562	-0.0483	-0.0252	0.0018	0.1083
55	#	-0.0488	-0.2071	0.1113	0.1427	0.2305
56	$	-0.2154	-0.1773	0.1053	0.0285	0.1407
57	%	-0.0917	-0.1488	0.1374	-0.1037	-0.0402
58	&	-0.1518	-0.0658	0.1062	0.0735	0.1388
59	'	-0.0460	-0.0965	0.2512	0.0577	-0.0153
60	(	0.1201	-0.0119	0.1779	0.1012	-0.0674
61	)	0.0107	-0.0681	0.0666	0.0488	0.0319
62	*	-0.0156	0.0132	-0.1097	0.1083	0.0129
63	+	0.0293	0.1153	0.0217	0.0657	0.0058
64	,	0.0256	0.0436	-0.0382	-0.0084	0.0144
65	-	-0.0028	-0.0077	-0.0386	-0.0137	0.0036
66	.	0.0075	-0.0706	-0.0607	-0.1349	-0.0740
67	/	0.0194	-0.0239	-0.0264	-0.0525	-0.0149
68	:	0.0309	-0.0499	-0.0575	-0.0545	0.0055
69	;	-0.0204	-0.0027	-0.0442	-0.0003	-0.0067
70	<	0.0094	-0.0297	-0.0469	-0.0529	0.0058
71	=	0.0890	-0.0255	-0.0409	-0.0302	-0.0229
72	>	0.1338	0.0327	-0.0458	0.1092	0.0204
73	?	-0.0136	-0.0475	-0.0130	0.1748	-0.0665
74	@	-0.1890	-0.2498	-0.2826	0.0951	-0.0544
75	[	-0.1980	-0.3280	-0.1927	0.0364	-0.0778
76	\	-0.0624	-0.1971	-0.1791	-0.0648	-0.2052
77	]	-0.1034	-0.0503	-0.0344	-0.0134	-0.0202
78	^	-0.0438	-0.1195	-0.1092	-0.0698	-0.0024
79	_	-0.1679	-0.4050	0.0414	-0.1609	-0.0663
80	`	-0.0548	-0.1732	0.3216	-0.3339	0.0304
81	{	-0.0470	-0.0799	0.1506	-0.0738	-0.1235

82	|	-0.0099	0.1042	0.2058	0.1036	0.0053
83	}	0.0768	0.2553	0.1214	0.0184	0.0077
84	A	0.1377	0.3125	-0.1672	0.1096	0.2008
85	B	0.0478	0.0789	-0.1109	-0.0135	0.1933
86	C	0.1148	0.2078	0.0355	0.0683	0.0613
87	D	0.0218	0.1155	0.1680	-0.0220	-0.0405
88	E	0.1220	0.2989	0.1597	0.0453	-0.0171
89	F	0.0329	0.1027	-0.2029	-0.0838	0.1780

	PLOT	AXIS 11	AXIS 12	AXIS 13	AXIS 14	AXIS 15
1	A	-0.0522	-0.0196	-0.1093	-0.0839	-0.0503
2	B	-0.0640	-0.0340	-0.0688	-0.0961	0.0036
3	C	-0.0276	-0.0069	0.0257	-0.0385	0.0313
4	D	-0.0582	-0.0521	-0.0618	-0.1111	0.0466
5	E	0.0094	0.0093	0.0817	0.0705	0.0175
6	F	0.1108	0.0379	0.1151	0.2386	-0.0108
7	G	0.0229	0.0605	0.0917	0.0277	-0.0267
8	H	-0.0370	-0.0390	-0.0443	0.0579	-0.0580
9	I	-0.0484	-0.0763	-0.0715	-0.0612	-0.0273
10	J	-0.0518	0.0703	0.0875	-0.1620	-0.0752
11	K	0.0172	-0.0463	0.0582	-0.1184	0.0028
12	L	0.2337	-0.0790	-0.0537	0.0153	-0.0086
13	M	0.4258	0.0357	0.0290	-0.0222	-0.0349
14	N	0.1565	-0.0015	-0.0957	0.0800	0.0307
15	O	0.0565	-0.0894	-0.0074	0.0904	0.1349
16	P	0.0314	-0.0957	-0.0201	0.0503	0.1804
17	Q	-0.0139	-0.0518	0.0389	-3.5E-0005	0.1609
18	R	0.1118	-0.0063	-0.0470	-0.0415	0.1142
19	S	-0.0209	0.1636	-0.0219	-0.0405	0.0735
20	T	-0.0335	0.0587	0.1435	-0.0553	0.0032
21	U	-0.0758	0.0937	0.0047	-0.0780	-0.1382
22	V	-0.1195	0.1534	-0.0057	0.0872	-0.0646
23	W	-0.0534	-0.0025	0.0264	-0.0029	-0.1041
24	X	0.0296	0.0355	0.0910	-0.0571	-0.0108
25	Y	-0.1024	0.0416	0.0573	0.0248	-0.1821
26	Z	-0.0645	0.0390	0.0114	-0.0256	-0.1883
27	a	-0.0523	-0.0560	0.0877	0.0511	0.0269
28	b	0.1073	-0.1471	0.1428	-0.0335	0.0467
29	c	0.0234	0.0626	0.1151	0.0502	-0.0234
30	d	-0.0732	-0.0368	-0.0479	0.0628	-0.0145
31	e	-0.0113	-0.0565	-0.0131	0.0484	-0.0707
32	f	-0.1228	-0.1649	0.0852	-0.1242	0.1426
33	g	-0.0085	-0.0042	-0.0159	0.0351	-0.0899
34	h	0.0496	-0.1258	0.0600	0.0190	0.0138
35	i	-0.0830	-0.0427	0.0244	0.0287	0.0914
36	j	0.0896	-0.0153	-0.0341	-0.0210	-0.0201
37	k	0.0191	-0.0706	-0.0488	0.0156	-0.0067
38	l	-0.0172	-0.0499	-0.0250	-0.0865	-0.0754
39	m	0.0284	-0.0319	-0.0600	-0.0912	-0.0124
40	n	0.0748	0.0183	-0.0338	-0.0940	0.0071
41	o	0.1287	0.0463	0.0875	-0.0755	0.1836
42	p	0.0980	0.1544	-0.1491	-0.0024	0.0781
43	q	-0.0174	0.0766	-0.1238	-0.0135	-0.0019
44	r	0.0104	0.0794	-0.1506	0.1660	0.0414
45	s	-0.0601	0.1595	-0.0295	0.1436	0.0742
46	t	0.0946	0.2681	-0.0754	-0.0104	-0.0596
47	u	-0.0984	-0.0653	-0.1399	0.0314	-0.1032
48	v	-0.1585	-0.2551	-0.0333	0.1035	-0.0245
49	w	-0.0073	0.0311	0.0954	-0.0079	-0.0380

50	x	0.0132	0.0509	0.0110	-0.0027	-0.1314
51	y	-0.0711	-0.0963	-0.0793	0.0564	0.0162
52	z	-0.0649	-0.0235	0.1220	-0.0975	0.0033
53	!	-0.0294	0.0369	-0.0504	0.0852	0.0176
54	"	-0.0099	0.0059	0.1073	-0.0696	0.0349
55	#	-0.0980	0.1569	0.0480	0.0399	0.0136
56	$	-0.0233	-0.0580	0.0227	0.0604	0.0494
57	%	-0.0673	-0.1094	0.1528	-0.0395	-0.0351
58	&	0.0117	-0.0961	-0.0047	-0.1320	-0.0143
59	'	0.0067	0.0207	-0.0036	-0.0107	-0.0120
60	(	-0.0021	0.0698	0.1683	-0.0863	-0.0197
61	)	-0.0195	0.1655	-0.0390	-0.0043	0.0183
62	*	0.0275	-0.1335	-0.1077	-0.0388	-0.0944
63	+	-0.0470	-0.0079	0.0015	-0.0021	-0.0084
64	,	-0.0134	0.0088	0.0221	0.0180	-0.0531
65	-	-0.0208	0.0209	-0.0055	0.0322	0.0101
66	.	0.0493	0.0410	-0.0178	0.1010	0.0386
67	/	-0.0056	0.0287	0.0038	0.0391	-0.0278
68	:	-0.0086	0.0367	-0.0196	-0.0063	-0.0106
69	;	-0.0116	-0.0233	0.0267	0.0211	-0.0098
70	<	0.0028	0.0402	-0.0145	0.0139	0.0097
71	=	-0.0060	-0.0434	0.0613	0.0759	0.0123
72	>	-0.1064	-0.0646	-0.0565	0.0684	0.0869
73	?	-0.1939	0.0335	-0.0421	0.1441	0.0970
74	@	0.2429	0.0833	-0.0696	-0.1238	0.0390
75	[	0.0162	0.0262	-0.0190	-0.0395	0.0331
76	\	0.0226	-0.1628	-0.0433	0.0512	-0.0582
77	]	-0.1192	0.0647	-0.0523	-0.0551	0.0335
78	^	-0.2090	0.0834	-0.0187	-0.1002	0.0645
79	_	-0.1300	0.1492	-0.0803	-0.0754	0.0601
80	`	0.1702	-0.1001	-0.1048	0.0552	-0.2040
81	{	0.0179	-0.0788	0.1148	0.1718	-0.0079
82	|	0.0276	-0.0095	-0.1321	-0.0141	0.0401
83	}	0.0042	-0.0380	-0.1181	-0.1150	0.0752
84	A	0.0305	-0.0506	-0.0485	-0.0847	0.0721
85	B	0.0049	0.0643	0.0817	0.0426	0.0260
86	C	0.0828	0.0354	0.1142	0.0638	0.0484
87	D	0.0201	0.1072	0.0384	0.0303	-0.0396
88	E	0.0396	-0.1827	-0.0964	-0.0277	-0.0679
89	F	0.0697	-0.0245	0.1540	0.0111	-0.0912

	PLOT	AXIS 16	AXIS 17	AXIS 18	AXIS 19	AXIS 20
1	A	0.0165	0.1721	-0.0415	-0.0158	0.0464
2	B	0.0337	0.1598	-0.0222	-0.0118	-0.0048
3	C	0.0177	0.0442	0.0103	-0.0011	-0.0372
4	D	0.0331	0.2251	-0.0626	0.0650	-0.1093
5	E	-0.0406	-0.1080	0.0498	0.0483	-0.0243
6	F	-0.1303	-0.2837	0.1060	0.0434	0.0534
7	G	0.0621	-0.1450	0.0154	-0.1009	0.0452
8	H	0.0538	-0.0744	-0.0313	0.0497	0.0051
9	I	-0.0018	0.0071	0.0167	-0.0038	0.0015
10	J	-0.0127	0.0248	0.0178	-0.0398	0.0786
11	K	-0.0066	-0.0818	-0.1370	-0.1971	0.0693
12	L	0.0112	0.0590	0.1406	0.0107	0.0320
13	M	0.0250	0.0777	0.0366	0.0041	-0.0359
14	N	0.0202	0.0235	-0.0043	-0.0865	-0.0231
15	O	0.0371	-0.0063	-0.0158	-0.0897	-0.0892
16	P	-0.0291	-0.0110	0.0161	0.0322	0.0837
17	Q	-0.0375	-0.0450	-0.0646	0.1469	-0.0701

18	R	-0.1264	0.0248	0.0598	0.0530	0.0277
19	S	-0.0702	-0.0761	-0.0565	0.0837	-0.0145
20	T	-0.0297	-0.0424	-0.0619	0.0604	0.0570
21	U	-0.0260	-0.0173	0.0644	0.0488	-0.0173
22	V	0.0728	-0.0050	0.0219	0.0971	0.0615
23	W	0.0257	-0.0101	-0.0862	-0.0186	-0.0658
24	X	0.0473	-0.0796	0.0453	-0.0823	-0.0809
25	Y	-0.0422	0.0065	-0.0492	-0.0550	-0.0002
26	Z	-0.0050	0.0353	0.1137	-0.0497	0.0221
27	a	0.0167	-0.0007	-0.0133	0.0314	-0.0465
28	b	0.1693	-0.0056	-0.0420	0.0346	-0.0670
29	c	0.0272	0.0341	0.0916	-0.0154	-0.0956
30	d	0.1175	-0.0006	0.0196	-0.0703	-0.0438
31	e	0.0645	-0.0393	-0.0029	0.0116	0.0867
32	f	0.1789	-0.0759	0.0695	-0.0022	-0.0096
33	g	-0.0544	0.0500	-0.0440	0.0879	-0.0460
34	h	-0.0219	0.0585	0.0169	-0.0023	-0.0153
35	i	0.0637	0.0001	-0.0131	0.0268	0.0545
36	j	-0.0317	0.0618	0.0858	-0.0467	0.1065
37	k	-0.0823	0.0122	-0.0368	-0.0540	-0.0069
38	l	-0.1120	0.0039	0.0026	0.0292	-0.0712
39	m	-0.0851	-0.0183	0.0167	-0.0356	-0.0401
40	n	-0.0695	-0.0790	-0.0486	-0.0715	-0.1158
41	o	-0.0296	0.0630	-0.0700	0.0305	0.1771
42	p	-0.0680	0.0326	0.0625	0.0098	0.0953
43	q	-0.0383	-0.0608	-0.0503	-0.1078	-0.0426
44	r	-0.0534	0.0194	-0.1054	-0.0211	-0.0686
45	s	0.0758	0.0685	-0.1643	0.0083	0.0550
46	t	0.1028	-0.0025	-0.1026	0.0129	0.0165
47	u	-0.0462	-0.0128	0.0249	-0.0417	-0.0039
48	v	-0.0604	0.0244	0.0356	-0.0438	0.0279
49	w	0.0266	0.0928	0.0481	0.0719	-0.0590
50	x	-0.0007	0.0361	0.0862	0.0810	-0.0016
51	y	0.1190	-0.0583	0.0252	-0.0094	0.0942
52	z	-0.0081	0.0095	0.0292	0.0203	-0.0069
53	!	0.0044	0.0296	0.1333	-0.0164	-0.1034
54	"	-0.0237	0.0274	0.1214	0.1378	0.0399
55	#	0.1496	0.0441	-0.0140	0.0504	0.1047
56	$	0.0241	-0.0139	-0.0478	-0.1175	-0.0330
57	%	0.0568	-0.0335	-0.1494	-0.1066	0.0555
58	&	-0.1552	-0.0827	0.0118	-0.0279	-0.0105
59	'	0.0167	-0.0550	0.0142	0.0384	-0.0430
60	(	-0.0709	0.0074	0.0098	0.1119	-0.0996
61	)	-0.0084	-0.0545	-0.0980	-0.0125	-0.0584
62	*	-0.1479	-0.0788	-0.1068	0.0184	0.0276
63	+	-0.0346	0.0126	-0.0200	0.0382	0.0358
64	,	0.0006	0.0207	0.0022	0.0023	0.0510
65	-	0.0052	0.0348	-0.0194	0.0071	0.0983
66	.	0.1200	0.0464	0.0541	-0.1191	-0.0764
67	/	0.0287	0.0242	0.0147	-0.0192	0.0171
68	:	0.0460	-0.0243	-0.0655	-0.0132	0.0291
69	;	0.0307	0.0190	0.0038	-0.0046	0.0481
70	<	0.0732	0.0016	0.0508	-0.0724	0.0032
71	=	0.0364	0.0430	0.0241	0.0615	-0.0933
72	>	-0.0686	0.0144	0.0020	0.0472	-0.0056
73	?	-0.1013	-0.0163	-0.0574	0.0845	-0.0839
74	@	0.0418	-0.0663	-0.0952	0.0655	-0.0359
75	[	-0.0308	-0.0043	0.0399	0.0108	-0.0502
76	\	-0.1147	0.0383	-0.0825	0.0723	0.1182
77	]	-0.0426	-0.0119	0.0064	-0.0074	-0.0430

78	^	-0.0183	-0.0560	0.0014	0.0653	0.0196
79	_	-0.0145	-0.0268	0.2279	-0.1221	0.0805
80	`	0.1609	-0.0737	-0.0919	0.1596	0.0138
81	{	-0.0978	0.1737	0.0542	-0.0472	0.0030
82	|	-0.0096	-0.0199	0.0946	-0.0093	-0.0230
83	}	0.0579	-0.0861	0.0340	0.0207	-0.0163
84	A	0.0268	-0.0671	0.0031	-0.0758	0.0177
85	B	0.0107	0.0392	-0.0489	-0.0741	-0.1028
86	C	-0.0727	0.1240	-0.0460	-0.0440	0.1244
87	D	-0.0045	0.0325	0.0677	-0.0626	-0.0224
88	E	0.1551	-0.0753	0.0584	0.1139	0.0268
89	F	-0.1281	0.0257	-0.0896	-0.0796	0.0022

	PLOT	AXIS 21	AXIS 22	AXIS 23	AXIS 24	AXIS 25
1	A	0.0852	0.0135	0.0118	-0.0079	-0.1083
2	B	0.0530	0.0311	-0.0133	-0.0281	-0.0237
3	C	0.0048	0.0237	-0.0020	-0.0295	0.1142
4	D	-0.0795	-0.0376	-0.0449	0.0041	-0.0121
5	E	-0.0249	-0.0498	0.0578	-0.0119	0.1412
6	F	0.0006	-0.0835	0.0862	-0.0091	-0.0095
7	G	0.0472	0.1460	-0.1364	0.0438	-0.1003
8	H	0.0044	-0.0142	-0.0385	0.0242	-0.1132
9	I	-0.0173	-0.0228	0.0800	0.0308	0.1095
10	J	-0.0688	-0.0580	0.0341	-0.0084	0.0181
11	K	0.0327	0.0909	-0.0114	-0.0579	0.0361
12	L	0.0538	0.0270	0.0845	-0.0331	0.0970
13	M	-0.1366	0.0230	0.0219	0.0341	-0.0305
14	N	0.0508	-0.0200	0.0075	0.0848	0.0051
15	O	0.0657	-0.0683	0.0196	0.1134	0.0168
16	P	0.1005	0.0093	0.0005	0.0189	-0.0525
17	Q	-0.0225	0.1359	-0.0478	-0.0132	-0.0419
18	R	-0.0097	-0.0089	-0.0405	-0.0645	0.0185
19	S	0.0155	-0.0334	-0.0531	0.0501	-0.0372
20	T	-0.0156	0.0098	-0.0032	-0.0157	-0.0842
21	U	0.0038	-0.0488	0.0824	-0.0067	0.0049
22	V	-0.0453	-0.0199	4.2E-0005	0.0004	-0.0018
23	W	0.1006	-0.0480	0.0206	0.0168	0.0370
24	X	-0.0827	0.0153	0.0539	-0.0478	-0.0458
25	Y	0.0299	-0.0875	-0.0529	0.0129	-0.0599
26	Z	0.0486	0.0220	-0.0338	-0.0629	0.0263
27	a	-0.0025	0.0286	0.0569	-0.0771	-0.0362
28	b	0.0782	-0.0110	0.0054	0.0565	0.0323
29	c	-0.0426	0.0535	-0.1413	0.0858	0.0918
30	d	-0.0420	0.0806	0.0684	0.0153	-0.0126
31	e	-0.0770	0.0647	-0.0655	-0.1049	0.0254
32	f	0.0491	0.0363	-0.0405	-0.0066	0.0578
33	g	-0.0396	0.0510	0.0321	-0.0218	-0.0122
34	h	0.1389	-0.0383	-0.0318	0.0244	0.0499
35	i	-0.0185	-0.0031	0.0228	-0.0174	-0.0707
36	j	-0.0619	-0.0215	0.0237	0.0591	-0.0204
37	k	-0.0516	0.0832	-0.0146	0.0830	0.0028
38	l	-0.0044	-0.0314	0.0362	-0.0288	-0.0539
39	m	-0.0050	-0.0420	0.0376	0.0563	-0.0443
40	n	-0.0313	-0.0489	0.0087	-0.0424	-0.0254
41	o	-0.0637	-0.0736	-0.0868	0.0158	-0.0411
42	p	-0.0025	0.0213	0.0700	-0.0656	-0.0264
43	q	0.0631	0.0447	0.0174	-0.0131	-0.0124
44	r	0.0795	0.0145	-0.0296	-0.0823	0.0590
45	s	-0.0319	0.0077	0.0063	-0.0674	0.1388

46	t	0.1229	-0.1201	-0.0140	0.0250	-0.0299
47	u	-0.0661	0.0233	-0.0586	0.0591	0.0326
48	v	-0.0753	0.0086	-0.0008	0.0752	-0.0394
49	w	-0.0981	0.0200	0.0196	-0.0868	0.0436
50	x	0.1145	0.0433	-0.0059	-0.0306	-0.0183
51	y	-0.0919	-0.0297	0.0374	0.0292	-0.0918
52	z	-0.0128	-0.0876	-0.0188	0.0038	-0.0074
53	!	-0.0900	0.0471	-0.0118	0.0354	-0.0415
54	"	0.0164	0.0426	-0.0665	0.0228	-0.0068
55	#	0.0420	-0.0263	0.0554	0.0607	0.0540
56	$	-0.0757	-0.1580	-0.0229	-0.0731	-0.0112
57	%	-0.0448	-0.0258	0.0855	-0.0286	0.0050
58	&	0.0683	0.0280	0.0150	-0.0005	0.0555
59	'	0.0413	0.1219	-0.0040	-0.0674	0.0024
60	(	0.0440	-0.0091	0.0080	0.0256	-0.0170
61	)	-0.0489	0.0077	-0.0413	0.1117	0.0327
62	*	-0.0094	-0.0188	-0.0765	0.0137	0.0531
63	+	0.0118	0.0077	0.0213	0.0678	0.0469
64	,	-0.0326	0.0062	0.0131	0.0545	0.0002
65	-	-0.0629	0.0610	0.0057	0.0330	0.0611
66	.	0.0091	-0.0583	-0.0216	-0.0630	-0.0262
67	/	-0.0179	-0.0009	0.0031	0.0197	-0.0020
68	:	-0.0247	0.0153	0.0206	0.0097	-0.0054
69	;	-0.0276	0.0413	0.0131	0.0365	0.0056
70	<	-0.0359	0.0156	-0.0057	-0.0661	-0.0046
71	=	0.0863	-0.0475	0.0416	-0.0300	-0.0903
72	>	-0.0096	-0.0264	0.0521	-0.0953	-0.0548
73	?	-0.0198	0.0134	-0.0884	-0.0485	0.0099
74	@	-0.0414	0.0405	0.0159	-0.0704	-0.0033
75	[	0.0015	-0.1033	-0.0554	0.0540	-0.0223
76	\	0.0719	0.0620	0.0747	-0.0154	-0.0180
77	]	-0.1351	-0.0356	0.0537	0.0223	0.0218
78	^	0.0480	0.0002	0.0724	0.0878	0.0585
79	_	0.0842	0.0153	-0.0811	-0.0429	0.0099
80	`	-0.0043	0.0262	-0.0526	0.0429	0.0210
81	{	0.0472	-0.0526	-0.0203	-0.0174	0.0129
82	|	-0.0253	-0.0358	-0.0575	0.0549	0.0096
83	}	0.0254	0.0462	0.1093	0.0456	0.0025
84	A	0.0008	-0.0773	-0.0604	-0.0876	0.0242
85	B	0.0372	0.0810	0.1285	0.0199	-0.0632
86	C	0.0217	0.0030	0.0163	0.0434	0.0025
87	D	0.0233	0.0892	0.0095	-0.0103	-0.0447
88	E	0.0158	-0.1267	-0.0785	-0.0902	0.0013
89	F	-0.0120	0.0105	-0.0874	-0.0366	0.0253

	PLOT	AXIS 26	AXIS 27	AXIS 28	AXIS 29	AXIS 30
1	A	0.1308	-0.0309	-0.0263	0.0637	0.0189
2	B	0.0530	-0.0012	-0.0111	0.0737	0.0466
3	C	0.0372	-0.0450	0.0254	0.0594	0.1180
4	D	-0.2388	0.0765	0.0242	-0.1251	-0.1226
5	E	0.0151	-0.0501	0.0216	-0.0086	0.0952
6	F	-0.0377	0.0272	-0.0189	-0.0141	-0.0293
7	G	0.1015	0.0236	-0.0147	-0.0167	-0.1237
8	H	-0.0339	0.0603	-0.0378	-0.0198	-0.0263
9	I	-0.0082	0.0038	0.0745	-0.0003	0.0524
10	J	0.0454	-0.1201	0.0252	0.0045	-0.0167
11	K	-0.0410	-0.0374	-0.0428	-0.0086	0.0142
12	L	0.0001	-0.0057	-0.0162	-0.0276	-0.0854
13	M	-0.0094	0.0032	-0.0347	0.0428	0.0564

14	N	-0.0138	-0.0484	-0.0808	-0.0318	-0.0279
15	O	-0.0328	-0.0167	-0.0150	0.0043	-0.0025
16	P	-0.0483	-0.0474	0.0126	0.0276	0.0124
17	Q	0.0686	0.0258	0.0415	-0.0635	0.0196
18	R	0.0717	0.0615	-0.0002	0.0284	0.0356
19	S	-0.0542	-0.0286	0.0664	0.0133	0.0540
20	T	-0.0149	0.0158	0.0650	-0.0347	0.0585
21	U	0.0496	-0.0024	-0.0072	-0.0581	-0.0639
22	V	-0.0603	0.0075	-0.0284	0.1277	-0.0658
23	W	-0.0436	0.0031	0.0893	0.0163	0.0216
24	X	-0.0265	0.1159	0.0775	-0.0391	0.0098
25	Y	0.0199	-0.0305	-0.0265	-0.0397	0.0235
26	Z	0.0002	-0.0171	-0.0317	-0.0363	-0.0153
27	a	0.0260	0.0377	-0.1108	0.0174	-0.0308
28	b	0.0709	0.0543	0.0027	-0.0338	0.0447
29	c	0.0244	0.0049	0.0638	0.0127	-0.0458
30	d	0.0202	0.1125	0.0080	0.1346	0.0146
31	e	-0.0662	-0.0667	0.0195	-0.0195	0.0166
32	f	-0.0638	-0.0018	-0.0592	0.0479	-0.0236
33	g	-0.0332	0.0480	0.0312	0.0006	0.0574
34	h	-0.0339	-0.0487	-7.8E-0005	-0.0482	-0.0260
35	i	0.0672	-0.0613	-0.0035	-0.0910	-0.0241
36	j	-0.0384	-0.0490	0.0630	-0.0524	0.0086
37	k	0.0118	-0.0701	-0.0581	-0.0423	-0.0004
38	l	0.0229	-0.0258	0.0352	-0.0202	0.0265
39	m	0.0135	0.0455	-0.0594	0.0479	0.0175
40	n	-0.0311	0.0248	-0.0223	0.1481	-0.0375
41	o	0.0302	0.0186	-0.0201	0.0070	0.0426
42	p	-0.0405	-0.0573	-0.0481	0.0265	-0.0859
43	q	-0.0056	-0.0987	0.0370	-0.0477	-0.0001
44	r	0.0723	0.0846	0.0370	-0.0205	-0.0056
45	s	0.0035	0.0765	-0.0402	0.0012	-0.0370
46	t	0.0187	0.0356	0.0657	-0.0222	-0.0044
47	u	0.0542	0.0467	6.2E-0005	0.0191	0.0045
48	v	-0.0133	-0.0356	0.0352	0.0036	-0.0104
49	w	0.0834	-0.0562	-0.0006	-0.0408	-0.0425
50	x	-0.0986	0.0318	-0.1096	0.0179	0.0601
51	y	-0.0408	0.0267	0.0907	0.0539	0.0414
52	z	0.0188	0.0104	-0.1042	0.0088	-0.0062
53	!	0.0458	-0.0275	0.0200	-0.0738	0.0328
54	"	-0.0407	-0.0096	-0.0051	0.0385	0.0674
55	#	0.0175	-0.0144	-0.0278	-0.0429	0.0220
56	$	0.0395	0.0234	-0.0176	-0.0311	-0.0160
57	%	0.0097	0.0043	-0.0200	-0.0028	-0.0269
58	&	-0.0511	0.0272	-0.0172	0.0267	-0.0544
59	'	-0.0215	-0.0482	0.0909	0.0219	-0.0364
60	(	0.0262	0.0292	0.0008	0.0326	-0.0562
61	)	-0.0129	-0.0195	-0.0121	0.0148	0.0299
62	*	0.0071	0.0549	-0.0207	-0.0021	0.0319
63	+	0.0696	0.0561	-0.0593	-0.0643	-5.0E-0005
64	,	-0.0160	0.0170	-0.0086	-0.0288	0.0161
65	-	0.0167	-0.0033	0.0956	0.0781	-0.0880
66	.	-0.0348	-0.0701	-0.0233	0.0136	0.0856
67	/	-0.0038	-0.0120	0.0469	0.0317	-0.0129
68	:	-0.0269	-0.0414	-0.0176	0.0102	0.0062
69	;	0.0060	-0.0120	0.0060	0.0125	-0.0497
70	<	-0.0154	0.0613	-0.0848	-0.1034	0.1042
71	=	0.0177	-0.0144	0.0357	-0.0046	-0.0163
72	>	-0.0006	-0.0171	0.0226	-0.0022	0.0240
73	?	-0.0386	-0.1271	-0.0969	0.0254	0.0027

74	@	0.0376	-0.0380	0.0154	-0.0177	-0.0509
75	[	0.0314	-0.0403	0.0181	0.0384	-0.0398
76	\	0.0058	0.0692	0.0224	-0.0414	0.0234
77	]	0.0402	0.0298	-0.0839	-0.0121	-0.0092
78	^	-0.0012	0.0040	-0.0115	-0.0005	-0.0111
79	_	-0.0292	0.0886	0.0619	-0.0463	0.0446
80	`	-0.0071	-0.0394	-0.0239	-0.0164	0.0326
81	{	0.0753	0.0220	0.0652	0.0406	-0.0607
82	|	0.0268	0.0237	-0.0249	-0.0088	-0.0032
83	}	0.0281	0.0008	-0.0069	-0.0425	-0.0239
84	A	0.0098	0.0162	0.0683	-0.0218	-0.0231
85	B	-0.0526	-0.0721	0.0489	0.0273	0.0150
86	C	-0.0633	0.0523	-0.0030	0.0238	0.0022
87	D	-0.0468	0.0369	-0.0625	0.0123	0.0496
88	E	0.0060	-0.0273	0.0105	0.0538	-0.0312
89	F	-0.0566	-0.0135	0.0147	0.0152	0.0083

	PLOT	AXIS 31	AXIS 32	AXIS 33	AXIS 34	AXIS 35
1	A	-0.0206	0.1020	0.0289	-0.0161	-0.0114
2	B	-0.0371	0.0456	0.0432	0.0213	-0.0156
3	C	-0.0731	-0.0525	0.0032	0.0338	0.0051
4	D	0.0717	-0.0578	-0.0111	-0.0649	0.0204
5	E	-0.0169	-0.0713	-0.0437	0.0413	0.0114
6	F	0.0489	0.0363	0.0163	-0.0226	-0.0261
7	G	0.0134	0.0272	-0.0034	-0.0185	0.0425
8	H	0.0239	0.0278	0.0009	0.0869	-0.0123
9	I	-0.0061	0.0394	-0.0450	-0.0284	-0.0141
10	J	0.0022	-0.0370	-0.0106	-0.1092	-0.0368
11	K	0.0239	-0.0213	0.0227	0.0419	-0.0140
12	L	-0.0043	0.0639	0.1029	-0.0301	0.0571
13	M	0.0616	0.0155	0.0040	0.0168	-0.0242
14	N	-0.0949	-0.0125	-0.0600	-0.0181	-0.0453
15	O	-0.0094	0.0014	-0.0009	0.0116	-0.0150
16	P	0.0141	-0.0465	-0.0061	-0.0527	-0.0141
17	Q	-0.0187	-0.0290	-0.0250	0.0658	0.0508
18	R	0.0983	-0.0041	-0.0279	-0.0472	0.0002
19	S	0.0513	0.0772	0.0032	-0.0229	0.0102
20	T	0.0423	0.0691	-0.0247	-0.0140	-0.0510
21	U	-0.0137	0.0187	0.0304	0.0237	0.0781
22	V	-0.0141	-0.0361	0.0203	0.0213	-0.0203
23	W	0.0188	-0.0002	-0.0030	0.0607	-0.0239
24	X	-0.1406	-0.0100	0.0326	-0.0045	0.0054
25	Y	-0.0279	-0.0589	-0.0118	-0.0020	0.0259
26	Z	0.0504	-0.0896	-0.0636	0.0238	0.0146
27	a	-0.0026	-0.0291	0.0031	-0.0478	-0.0592
28	b	0.0498	-0.0322	0.0088	-0.0707	0.0227
29	c	-0.0407	0.0542	0.0141	-0.0371	0.0613
30	d	0.0338	-0.0698	0.0141	-0.0253	-0.0450
31	e	0.0380	0.0554	0.0350	-0.0159	-0.0453
32	f	-0.0131	0.0432	0.0422	0.0823	0.0191
33	g	-0.0575	0.1020	-0.0615	0.0273	-0.0026
34	h	-0.0210	0.0727	-0.0123	0.0432	-0.1088
35	i	-0.0092	-0.0535	0.0255	0.0135	0.0191
36	j	-0.0310	0.0166	0.0369	0.0417	0.0307
37	k	0.0276	-0.0020	-0.0530	0.0328	-0.0124
38	l	0.0205	0.0154	-0.0153	0.0459	0.0372
39	m	-0.0129	-0.0552	-0.0136	-0.0641	0.0204
40	n	-0.0007	-0.0240	0.0275	-0.0219	0.0409
41	o	0.0073	-0.0625	0.0304	0.0290	-0.0175

42	p	-0.0558	-0.0095	-0.0026	0.0264	-0.0135
43	q	0.0347	0.0032	0.0482	-0.0576	0.0261
44	r	0.0123	-0.0149	0.0005	-0.0619	-0.0005
45	s	-0.0243	0.0528	-0.0036	0.0230	0.0034
46	t	-0.0046	-0.0299	0.0165	0.0543	-0.0104
47	u	0.0787	-0.0074	-0.0198	0.0186	-0.0437
48	v	-0.0086	-0.0386	0.0495	0.0385	-0.0369
49	w	0.0075	-0.0435	0.0153	0.0322	-0.0560
50	x	0.0126	0.0078	-0.0616	-0.0043	0.0138
51	y	-0.0382	0.0506	-0.0518	-0.0536	0.0479
52	z	-0.0277	0.0208	-0.0912	-0.0011	0.0567
53	!	-0.0633	-0.0098	0.0606	-0.0306	-0.0360
54	"	-0.0007	-0.0015	-0.0013	-0.0492	0.0405
55	#	0.0469	-0.0436	-0.0244	-0.0057	0.0497
56	$	-0.0706	0.0016	0.0050	0.0146	0.0374
57	%	0.0623	0.0380	-0.0320	-0.0101	0.0083
58	&	-0.0322	0.0173	-0.0059	0.0256	0.0081
59	'	0.0423	-0.0028	-0.0223	0.0161	-0.0576
60	(	-0.0248	-0.0112	0.0419	0.0414	-0.0638
61	)	-0.0196	0.0070	0.0260	0.0147	-0.0095
62	*	0.0139	-0.0533	0.0272	-0.0058	0.0389
63	+	0.0259	0.0094	0.0833	-0.0589	-0.0198
64	,	0.0353	-0.0134	0.0587	0.0632	-0.0023
65	-	-0.0031	-0.0472	-0.0342	0.0004	0.0320
66	.	0.0933	0.0448	0.0377	0.0389	0.1108
67	/	0.0425	-0.0022	-0.0034	0.0288	0.0379
68	:	-0.0507	0.0441	-0.0862	-0.0647	0.0001
69	;	-0.0461	-0.0021	-0.0977	-0.0206	-0.0201
70	<	4.3E-0005	0.0354	-0.0176	-0.0432	-0.0707
71	=	-0.0521	-5.2E-0005	-0.0229	-0.0247	-0.0398
72	>	0.0093	-0.0188	0.0690	0.0296	0.0668
73	?	-0.0387	0.0011	-0.0236	-0.0381	0.0275
74	@	-0.0124	-0.0069	-0.0430	0.0315	0.0047
75	[	-0.0056	-0.0209	0.0085	-0.0115	-0.0511
76	\	-0.0491	-0.0433	0.0155	0.0100	0.0171
77	]	0.0493	0.1060	0.0151	0.0386	-0.0457
78	^	0.0282	0.0331	0.0939	-0.0552	-0.0184
79	_	-0.0338	-0.0130	-0.0143	-0.0081	-0.0361
80	`	-0.0437	-0.0194	0.0343	-0.0415	-0.0031
81	{	0.0791	0.0527	-0.0795	0.0041	0.0376
82	|	0.0446	-0.0164	-0.0472	0.0847	-0.0263
83	}	-0.0084	0.0190	-0.0863	0.0107	0.0897
84	A	0.0055	-0.0161	-0.0371	-0.0088	-0.0712
85	B	0.0754	-0.0494	0.0075	-0.0037	-0.0360
86	C	-0.0681	-0.0021	0.0150	0.0396	0.0010
87	D	-0.0022	-0.0670	0.0266	0.0113	0.0370
88	E	0.0001	-0.0094	0.0354	-0.0108	-0.0171
89	F	-0.0558	0.0403	0.0647	-0.0578	0.0343

	PLOT	AXIS 36	AXIS 37	AXIS 38	AXIS 39	AXIS 40
1	A	0.0469	0.0092	-0.0351	0.0476	0.0043
2	B	-0.0148	0.0127	-0.0021	0.0025	-0.0131
3	C	-0.0242	-0.0138	0.0286	-0.0338	-0.0425
4	D	-0.0156	-0.0025	-0.0084	-0.0190	0.0199
5	E	0.0120	-0.0238	0.0231	0.0004	0.0068
6	F	-0.0011	0.0147	-0.0379	0.0139	0.0176
7	G	-0.0077	0.0194	0.0309	-0.0093	0.0333
8	H	0.0096	-0.0095	0.0253	0.0194	-0.0224
9	I	-0.0040	-0.0191	0.0008	0.0137	0.0537

10	J	0.0532	-0.0093	-0.0080	-0.0251	-0.0074
11	K	-0.0996	-0.0422	0.0029	-0.0296	0.0123
12	L	0.0369	0.0088	0.0251	0.0458	0.0085
13	M	-0.0538	0.0773	0.0046	0.0220	-0.0533
14	N	-0.0419	0.0266	-0.0384	-0.0184	-0.0020
15	O	0.0266	0.0782	-8.8E-0005	0.0056	-0.0391
16	P	0.0206	-0.0024	-0.0021	-0.0132	-0.0126
17	Q	-0.0096	-0.0419	-0.0584	0.0269	-0.0260
18	R	-0.0853	-0.0374	-0.0075	0.0081	0.0149
19	S	0.0402	0.0120	0.0796	-0.0305	-0.0293
20	T	-0.1079	-0.0032	0.0154	-0.0015	0.0341
21	U	-0.0140	0.0105	-0.0608	0.0014	-0.0430
22	V	0.0756	-0.0095	-0.0086	-0.1014	0.0112
23	W	-0.0262	0.0727	-0.0245	0.0383	0.0597
24	X	0.0509	-0.0547	0.0558	0.0198	0.0158
25	Y	0.0295	-0.0489	0.0075	0.0021	0.0087
26	Z	-0.0128	0.0010	-0.0027	0.0631	-0.0135
27	a	-0.0250	-0.0294	-0.0436	0.0068	0.0039
28	b	0.0581	0.0463	0.0203	-0.0080	0.0222
29	c	-0.0001	-0.0543	-0.0317	0.0233	-0.0307
30	d	-0.0463	-0.0094	-0.0218	-0.0146	0.0207
31	e	0.0387	0.0668	0.0112	-0.0007	-0.0640
32	f	0.0023	-0.0080	0.0406	-0.0396	-0.0010
33	g	0.0402	0.0091	-0.0025	-0.0168	0.0065
34	h	0.0051	-0.0558	-0.0194	-0.0286	0.0261
35	i	0.0085	0.0244	-0.0046	-0.0316	-0.0025
36	j	-0.0219	-0.0666	-0.0038	0.0515	-0.0345
37	k	-0.0235	0.0470	0.0212	-0.0297	0.0159
38	l	0.0038	0.0931	0.0246	-0.0054	0.0535
39	m	-0.0097	0.0101	0.0280	-0.0038	-0.0164
40	n	0.0425	0.0157	-0.0420	0.0049	-0.0477
41	o	0.0857	-0.0417	0.0112	0.0384	0.0245
42	p	-0.0299	-0.0261	-0.0068	-0.0604	0.0184
43	q	0.0362	0.0222	0.0704	0.0056	0.0201
44	r	-0.0317	-0.0368	0.0349	-0.0211	-0.0083
45	s	-0.0062	0.0330	0.0110	0.0619	-0.0449
46	t	-0.0406	-0.0172	-0.0583	0.0016	-0.0154
47	u	0.0299	-0.0279	0.0213	-0.0168	0.0261
48	v	0.0050	-0.0177	-0.0311	0.0646	-0.0192
49	w	0.0105	0.0405	-0.0057	-0.0139	0.0527
50	x	0.0149	-0.0727	0.0680	0.0225	-0.0260
51	y	-0.0171	0.0039	-0.0515	0.0121	0.0255
52	z	-0.0317	0.0370	-0.0401	0.0040	-0.0299
53	!	-0.0399	0.0195	0.0156	-0.0758	0.0129
54	"	-0.0058	0.0102	-0.0247	-0.0165	0.0082
55	#	-0.0032	0.0231	0.0082	-0.0286	-0.0115
56	$	0.0012	5.5E-0005	0.0640	0.0076	0.0045
57	%	0.0105	-0.0025	-0.0051	0.0118	-0.0369
58	&	-0.0044	-0.0220	-0.0031	0.0085	0.0321
59	'	0.0907	-0.0014	-0.0565	-0.0016	-0.0250
60	(	-0.0089	0.0471	-0.0144	-0.0058	-0.0049
61	)	0.0099	0.0107	-0.0583	-0.0199	0.0478
62	*	0.0585	0.0136	-0.0125	-0.0088	0.0040
63	+	0.0333	-0.0316	-0.0054	0.0050	-0.0181
64	,	-0.0598	-0.0070	0.0140	-0.0090	-0.0538
65	-	-0.0177	0.0339	0.0030	0.0470	0.0340
66	.	0.0066	-0.0510	-0.0740	-0.0450	0.0778
67	/	-0.0366	0.0227	0.0701	-0.0115	-0.0707
68	:	0.0114	-0.0113	0.0359	-0.0111	-0.0058
69	;	-0.0412	-0.0114	0.0270	0.0181	0.0268

70	<	0.0546	0.0035	-0.0724	0.0283	0.0177
71	=	-0.0120	-0.0068	0.0612	0.0054	-0.0347
72	>	-0.0453	0.0006	-0.0022	-0.0034	-0.0035
73	?	-0.0094	0.0382	-0.0092	0.0944	0.0062
74	@	0.0321	-0.0222	0.0183	0.0260	0.0499
75	[	-0.0491	-0.0495	0.0287	0.0262	-0.0134
76	\	0.0232	0.0338	-0.0076	-0.0831	-0.0311
77	]	0.0089	-0.0382	0.0509	-0.0305	-0.0006
78	^	-0.0549	-0.0002	-0.0025	0.0394	0.0281
79	_	-0.0047	0.0706	-0.0146	0.0205	-0.0280
80	`	-0.0376	-0.0423	-0.0042	-0.0023	-0.0014
81	{	0.0183	-0.0246	0.0113	-0.0590	0.0099
82	|	0.0730	-0.0199	-0.0088	0.0007	-0.0131
83	}	0.0078	-0.0198	-0.0389	-0.0244	-0.0270
84	A	0.0020	0.0316	-0.0366	-0.0297	-0.0598
85	B	0.0394	-0.0823	-0.0029	0.0544	-0.0419
86	C	0.0367	0.0232	0.0165	0.0295	0.0776
87	D	0.0078	0.0538	0.0454	0.0203	0.0511
88	E	-0.0447	0.0046	0.0340	0.0261	0.0474
89	F	-0.0319	-0.0073	-0.0551	-0.0579	-0.0275

	PLOT	AXIS 41	AXIS 42	AXIS 43	AXIS 44	AXIS 45
1	A	-0.0303	0.0164	0.0448	-0.0394	0.0713
2	B	-0.0173	0.0256	-0.0619	-0.0104	-0.0056
3	C	0.0525	-0.0052	-0.0357	0.0235	-0.0510
4	D	-0.0097	-0.0122	0.0034	0.0008	0.0026
5	E	0.0409	-0.0392	0.0824	0.0263	-0.0031
6	F	-0.0623	0.0251	-0.0425	-0.0404	0.0513
7	G	0.0059	-0.0030	0.0042	0.0397	-0.0807
8	H	0.0373	-0.0137	0.0259	0.0168	-0.0045
9	I	0.0180	-0.0202	-0.0393	-0.0231	0.0361
10	J	-0.0167	0.0230	0.0382	0.0083	0.0013
11	K	-0.0323	-0.0176	-0.0294	0.0058	0.0150
12	L	0.0511	-0.0014	-0.0093	-0.0270	-0.0193
13	M	0.0201	-0.0257	0.0167	0.0203	-0.0267
14	N	-0.0387	-0.0093	0.0234	-0.0115	0.0141
15	O	-0.0233	-0.0098	-0.0407	0.0476	0.0175
16	P	0.0094	0.0610	0.0390	0.0577	0.0281
17	Q	0.0034	-0.0360	0.0315	-0.0095	0.0453
18	R	-0.0481	-0.0356	-0.0117	0.0321	0.0023
19	S	0.0426	0.0435	-0.0209	-0.0339	-0.0352
20	T	0.0517	0.0425	0.0036	-0.0690	-0.0179
21	U	-0.0085	-0.0569	-0.0334	0.0188	-0.0165
22	V	0.0699	-9.3E-0005	-0.0121	-0.0168	0.0090
23	W	-0.0378	0.0283	0.0116	0.0157	-0.0070
24	X	-0.0726	0.0617	0.0065	0.0417	-0.0051
25	Y	-0.0263	-0.0566	0.0095	0.0272	-0.0118
26	Z	0.0264	0.0127	0.0116	-0.0345	0.0305
27	a	0.0178	-0.0128	0.0078	-0.0223	-0.0077
28	b	0.0213	-0.0282	-0.0245	-0.0038	0.0150
29	c	0.0242	0.0268	-0.0064	-0.0397	0.0341
30	d	-0.0433	-6.7E-0006	-0.0406	-0.0094	-0.0337
31	e	-0.0402	-0.0368	0.0537	0.0119	-0.0047
32	f	0.0120	0.0264	0.0137	-0.0098	0.0466
33	g	-0.0348	0.0254	0.0273	0.0537	-0.0081
34	h	-0.0093	-0.0360	0.0104	-0.0272	-0.0344
35	i	-0.0083	-0.0138	-0.0554	0.0214	-0.0041
36	j	0.0088	0.0388	-0.0212	0.0135	-0.0122
37	k	0.0283	0.0353	0.0153	-0.0156	0.0081

38	l	0.0253	-0.0097	-0.0102	0.0140	-0.0099
39	m	0.0498	0.0259	0.0259	0.0238	-0.0013
40	n	-0.0183	-0.0093	0.0252	-0.0130	0.0055
41	o	-0.0196	-0.0565	-0.0117	-0.0095	0.0068
42	p	0.0444	0.0102	-0.0228	0.0159	-0.0094
43	q	-0.0168	-0.0419	-0.0014	-0.0158	-0.0076
44	r	0.0488	-0.0030	0.0262	0.0008	0.0182
45	s	-0.0343	0.0138	0.0418	-0.0108	-0.0423
46	t	0.0488	-0.0257	-0.0038	0.0117	0.0246
47	u	-0.0220	0.0116	-0.0119	0.0324	0.0349
48	v	0.0345	0.0032	0.0038	-0.0034	-0.0244
49	w	-0.0361	0.0182	-0.0440	-0.0123	-0.0118
50	x	-0.0442	0.0003	-0.0330	0.0109	0.0012
51	y	0.0353	-0.0624	-0.0084	0.0128	-0.0059
52	z	0.0127	0.0392	0.0129	0.0248	-0.0080
53	!	-0.0055	0.0111	0.0336	-0.0074	0.0365
54	"	-0.0576	-0.0406	-0.0101	-0.0395	-0.0255
55	#	-0.0584	0.0665	0.0119	-0.0008	0.0102
56	$	0.0022	-0.0162	0.0004	-0.0682	-0.0102
57	%	0.0600	0.0231	-0.0156	0.0026	0.0223
58	&	0.0075	-0.0334	0.0157	0.0046	-0.0146
59	'	-0.0058	-0.0193	0.0128	0.0406	0.0084
60	(	0.0141	0.0118	0.0076	-0.0028	-0.0027
61	)	-0.0143	-0.0166	-0.0192	-0.0201	-0.0115
62	*	0.0004	0.0656	-0.0342	-0.0343	-0.0194
63	+	0.0180	0.0035	0.0040	0.0348	-0.0156
64	,	-0.0055	0.0197	0.0005	0.0252	0.0195
65	-	0.0003	-0.0098	0.0262	-0.0269	-0.0065
66	.	-0.0183	0.0155	0.0509	-0.0003	-0.0392
67	/	-0.0488	-0.0360	-0.0140	-0.0085	0.0432
68	:	-0.0212	-0.0409	-0.0138	-0.0086	0.0258
69	;	0.0219	-0.0020	0.0142	-0.0015	0.0168
70	<	0.0649	0.0381	0.0015	0.0098	-0.0225
71	=	0.0154	-0.0429	-0.0174	-0.0162	0.0019
72	>	-0.0075	0.0444	-0.0080	0.0076	0.0323
73	?	0.0033	0.0071	-0.0635	0.0199	-0.0211
74	@	0.0059	0.0484	-0.0240	0.0354	0.0436
75	[	-0.0585	0.0537	0.0596	-0.0212	-0.0437
76	\	-0.0326	-0.0092	0.0434	-0.0538	-0.0464
77	]	-0.0091	-0.0655	-0.0051	0.0100	0.0072
78	^	0.0006	-0.0203	0.0440	0.0484	0.0020
79	_	0.0190	-0.0087	-0.0364	0.0101	0.0019
80	`	-0.0054	0.0188	-0.0467	0.0040	0.0043
81	{	0.0069	0.0210	-0.0240	0.0486	-0.0076
82	|	-0.0021	-0.0037	-0.0046	-0.0435	0.0101
83	}	-0.0293	0.0088	0.0060	-0.0398	-0.0437
84	A	-0.0159	0.0146	-0.0175	-0.0213	-0.0104
85	B	0.0144	0.0067	-0.0188	-0.0298	-0.0346
86	C	-0.0070	-0.0079	-0.0150	0.0245	7.9E-0006
87	D	0.0272	-0.0223	0.0419	-0.0417	0.0452
88	E	0.0096	-0.0049	0.0315	0.0215	-0.0137
89	F	0.0208	-0.0142	-0.0026	0.0175	0.0487

	PLOT	AXIS 46	AXIS 47	AXIS 48	AXIS 49	AXIS 50
1	A	0.0230	-0.0047	-0.0677	0.0222	0.0255
2	B	-0.0117	-0.0270	0.0442	-0.0401	-0.0358
3	C	-0.0064	0.0032	0.0277	0.0130	0.0155
4	D	-0.0003	0.0005	4.1E-0005	0.0056	-0.0003
5	E	0.0041	0.0489	-0.0450	0.0142	0.0199

6	F	-0.0021	-0.0377	0.0269	-0.0192	-0.0213
7	G	-0.0011	-0.0037	-0.0059	0.0076	-0.0168
8	H	-0.0063	0.0378	-0.0026	-0.0031	0.0297
9	I	0.0027	-0.0484	-0.0058	0.0314	-0.0287
10	J	-0.0294	-0.0107	0.0255	-0.0047	-0.0286
11	K	-0.0189	-0.0081	-0.0155	-0.0453	0.0272
12	L	0.0051	0.0586	0.0334	-0.0084	-0.0039
13	M	0.0239	-0.0240	-0.0124	-0.0201	-0.0244
14	N	-0.0134	0.0390	0.0222	0.0223	0.0068
15	O	-0.0134	-0.0265	-0.0339	0.0201	0.0041
16	P	-0.0018	-0.0028	-0.0004	-0.0232	0.0017
17	Q	0.0186	-0.0132	0.0403	-0.0134	-0.0111
18	R	-0.0148	0.0080	0.0073	0.0398	0.0135
19	S	-0.0302	-0.0068	0.0070	-0.0017	0.0291
20	T	0.0173	0.0265	-0.0082	0.0302	-0.0040
21	U	-0.0085	-0.0192	0.0219	0.0294	0.0283
22	V	0.0450	-0.0006	-0.0260	-0.0103	-0.0249
23	W	0.0292	0.0612	-0.0044	-0.0377	0.0113
24	X	0.0286	-0.0368	-0.0369	-0.0008	0.0077
25	Y	-0.0651	-0.0146	0.0107	-0.0121	-0.0090
26	Z	-0.0060	0.0123	0.0059	-0.0006	-0.0345
27	a	0.0037	0.0108	-0.0265	-0.0255	0.0306
28	b	-0.0307	-0.0154	-0.0393	-0.0142	0.0037
29	c	-0.0057	0.0084	-0.0166	0.0095	0.0320
30	d	0.0113	0.0403	0.0420	0.0279	-0.0034
31	e	-0.0269	-0.0395	0.0018	0.0197	-0.0013
32	f	-0.0265	-0.0140	0.0335	0.0131	-0.0240
33	g	-0.0158	0.0277	0.0321	0.0122	-0.0249
34	h	0.0091	-0.0198	-0.0041	0.0178	-0.0010
35	i	0.0533	0.0276	-0.0175	0.0334	0.0073
36	j	0.0453	0.0110	0.0039	-0.0195	0.0286
37	k	-0.0150	-0.0329	0.0201	-0.0030	0.0279
38	l	-0.0234	-0.0170	0.0043	-0.0196	-0.0055
39	m	0.0490	-0.0111	-0.0251	-0.0096	-0.0321
40	n	-0.0238	0.0281	0.0263	-0.0089	0.0268
41	o	0.0223	0.0114	0.0233	-0.0146	-0.0122
42	p	-0.0430	-0.0170	-0.0333	0.0341	0.0225
43	q	0.0270	0.0399	0.0090	0.0037	-0.0220
44	r	-0.0086	-0.0489	-0.0087	-0.0267	-0.0060
45	s	-0.0020	-0.0138	-0.0085	0.0043	-0.0093
46	t	0.0102	-0.0140	0.0098	-0.0101	-0.0237
47	u	0.0156	0.0067	0.0093	0.0494	0.0055
48	v	-0.0326	0.0017	-0.0114	-0.0203	-0.0136
49	w	0.0037	-0.0308	-0.0215	-0.0205	0.0358
50	x	-0.0167	0.0112	-0.0335	-0.0295	-0.0016
51	y	-0.0382	-0.0271	0.0022	0.0003	0.0360
52	z	0.0283	-0.0274	0.0180	0.0155	-0.0063
53	!	0.0199	0.0230	0.0113	-0.0410	-0.0145
54	"	-0.0035	0.0281	-0.0386	0.0035	-0.0235
55	#	0.0096	-0.0074	0.0356	-0.0095	0.0392
56	$	-0.0019	0.0003	0.0036	0.0238	-0.0337
57	%	0.0039	0.0399	-0.0117	0.0173	-0.0124
58	&	0.0475	-0.0313	-0.0176	0.0048	-0.0123
59	'	0.0146	0.0075	0.0065	0.0148	-0.0098
60	(	-0.0305	0.0037	0.0008	0.0012	0.0115
61	)	-0.0019	0.0123	-0.0151	0.0157	-0.0330
62	*	0.0219	-0.0151	0.0064	0.0035	0.0504
63	+	-0.0250	0.0076	0.0178	0.0092	-0.0128
64	,	0.0114	-0.0208	-0.0249	0.0147	-0.0299
65	-	-0.0437	-0.0131	-0.0254	-0.0464	0.0040

66	.	0.0219	-0.0278	-0.0058	-0.0064	0.0008
67	/	0.0365	0.0016	-0.0151	0.0215	0.0034
68	:	0.0386	0.0274	0.0334	-0.0332	0.0281
69	;	0.0149	-0.0076	0.0190	-0.0118	-0.0179
70	<	-0.0119	0.0095	0.0127	-0.0006	0.0059
71	=	-0.0069	-0.0072	0.0317	0.0001	0.0255
72	>	-0.0733	0.0425	-0.0197	0.0052	-0.0293
73	?	0.0456	-0.0033	-0.0130	0.0012	-0.0142
74	@	-0.0157	0.0127	0.0057	0.0181	-0.0076
75	[	-0.0331	0.0036	0.0020	0.0238	-0.0030
76	\	0.0348	-0.0156	0.0035	0.0065	-0.0044
77	]	-0.0080	0.0179	-0.0166	-0.0439	0.0100
78	^	0.0174	-0.0096	0.0082	-0.0099	0.0131
79	_	0.0014	0.0009	-0.0098	-0.0117	0.0032
80	`	-0.0373	0.0107	-0.0253	0.0040	-0.0144
81	{	0.0051	0.0183	0.0008	-0.0144	-0.0058
82	|	-0.0014	-0.0017	0.0131	-0.0259	0.0073
83	}	-0.0180	0.0090	-0.0226	-0.0217	-0.0243
84	A	-0.0071	0.0343	-0.0312	-0.0034	0.0002
85	B	0.0158	-0.0441	0.0135	0.0208	0.0014
86	C	-0.0294	0.0129	0.0096	0.0151	0.0019
87	D	-0.0182	-0.0134	0.0178	0.0483	0.0264
88	E	0.0509	-0.0238	0.0296	-0.0021	0.0172
89	F	0.0174	0.0104	0.0116	-0.0053	0.0066

	PLOT	AXIS 51	AXIS 52	AXIS 53	AXIS 54	AXIS 55
1	A	-0.0257	0.0132	-0.0202	0.0024	-0.0103
2	B	0.0465	0.0255	0.0340	-0.0171	0.0154
3	C	-0.0661	-0.0702	-0.0189	0.0338	-0.0158
4	D	0.0006	-0.0009	-0.0051	0.0019	-0.0003
5	E	0.0427	0.0491	0.0042	-0.0365	0.0179
6	F	-0.0052	-0.0052	-0.0018	0.0150	-0.0135
7	G	0.0171	-0.0079	0.0111	0.0097	0.0149
8	H	-0.0184	-0.0123	-0.0075	-0.0074	-0.0064
9	I	0.0152	-0.0080	-0.0003	0.0005	0.0072
10	J	0.0044	-0.0024	0.0123	0.0121	-0.0146
11	K	0.0139	0.0107	0.0099	-0.0093	0.0130
12	L	-0.0051	0.0020	-0.0225	-0.0309	-0.0094
13	M	0.0029	0.0167	0.0021	-0.0031	-0.0213
14	N	0.0138	-0.0199	0.0190	0.0320	-0.0035
15	O	-0.0246	-0.0015	0.0145	-0.0075	0.0240
16	P	0.0216	-0.0369	-0.0168	-0.0088	0.0038
17	Q	-0.0173	0.0137	0.0307	-0.0057	-0.0263
18	R	-0.0023	0.0206	-0.0138	0.0230	0.0025
19	S	0.0107	0.0334	0.0070	0.0289	-0.0257
20	T	-0.0075	-0.0310	-0.0064	-0.0369	0.0120
21	U	-0.0152	-0.0038	0.0370	-0.0169	0.0243
22	V	0.0011	0.0034	0.0050	-0.0001	0.0197
23	W	0.0012	0.0079	0.0098	0.0402	0.0217
24	X	-0.0344	0.0107	-0.0196	-0.0144	-0.0166
25	Y	0.0264	0.0062	-0.0206	-0.0058	-0.0200
26	Z	-0.0288	0.0093	-0.0067	0.0194	-0.0171
27	a	0.0222	-0.0571	-0.0075	-0.0087	-0.0028
28	b	0.0062	0.0067	0.0002	0.0068	-0.0116
29	c	0.0249	-0.0032	0.0016	0.0326	0.0272
30	d	-0.0038	0.0262	-0.0097	-0.0067	-0.0050
31	e	-0.0252	-0.0227	0.0084	-0.0106	0.0380
32	f	0.0092	0.0179	-0.0116	-0.0073	-0.0061
33	g	0.0343	-0.0159	0.0033	-0.0031	-0.0140

34	h	-0.0097	-0.0076	0.0227	-0.0036	-0.0221
35	i	0.0019	0.0146	0.0130	0.0068	-0.0300
36	j	0.0242	-0.0030	0.0143	0.0065	0.0194
37	k	-0.0169	0.0191	-0.0257	-0.0250	-0.0213
38	l	0.0085	-0.0096	-0.0311	0.0127	0.0163
39	m	0.0131	-0.0258	0.0599	-0.0086	-0.0170
40	n	-0.0137	0.0064	-0.0203	-0.0112	0.0067
41	o	-0.0043	0.0013	-0.0187	0.0131	0.0360
42	p	0.0050	0.0316	-0.0015	0.0125	-0.0116
43	q	-0.0236	-0.0052	0.0013	-0.0236	0.0123
44	r	-0.0042	-0.0022	0.0006	-0.0096	0.0232
45	s	0.0199	-0.0022	0.0135	0.0048	-0.0175
46	t	0.0037	-0.0114	-0.0211	-0.0121	-0.0167
47	u	0.0312	-0.0155	-0.0224	-0.0092	-0.0027
48	v	-0.0012	0.0129	0.0018	-0.0048	-0.0203
49	w	0.0180	-0.0180	0.0004	-0.0228	0.0036
50	x	-0.0320	0.0114	0.0172	0.0025	0.0085
51	y	-0.0102	0.0005	0.0078	0.0013	0.0101
52	z	0.0031	0.0094	-0.0181	-0.0089	0.0311
53	!	-0.0080	0.0093	-0.0060	0.0283	0.0184
54	"	-0.0030	-0.0120	0.0168	-0.0073	-0.0111
55	#	-0.0146	0.0052	-0.0008	-0.0083	-0.0081
56	$	-0.0004	0.0005	0.0028	0.0062	-0.0105
57	%	0.0047	-0.0019	0.0096	0.0308	0.0006
58	&	0.0074	-0.0078	-0.0086	0.0200	0.0061
59	'	0.0087	0.0021	0.0113	0.0096	-0.0208
60	(	0.0033	0.0068	-0.0172	0.0012	0.0065
61	)	-0.0309	0.0051	0.0099	-0.0320	0.0023
62	*	-0.0010	-0.0044	0.0329	-0.0059	-0.0156
63	+	0.0071	-0.0028	-0.0184	0.0082	0.0085
64	,	-0.0141	0.0053	-0.0105	0.0089	0.0066
65	-	-0.0068	-0.0098	0.0022	0.0065	-0.0201
66	.	0.0079	-0.0093	-0.0091	0.0138	-0.0110
67	/	0.0459	-0.0334	-0.0205	-0.0086	-0.0137
68	:	0.0058	-0.0040	0.0026	-0.0188	-0.0040
69	;	-0.0439	0.0248	-0.0030	-0.0012	0.0196
70	<	-0.0025	0.0180	0.0038	-0.0007	0.0104
71	=	0.0194	0.0127	-0.0018	0.0007	0.0037
72	>	-0.0048	-0.0198	0.0298	-0.0039	0.0152
73	?	0.0055	0.0156	-0.0336	0.0058	-0.0001
74	@	-0.0039	-0.0153	0.0131	0.0105	0.0138
75	[	-0.0021	-0.0028	0.0091	-0.0163	0.0078
76	\	0.0017	0.0228	-0.0178	0.0283	0.0269
77	]	-0.0044	-0.0030	0.0079	0.0318	-0.0132
78	^	-0.0227	0.0078	0.0044	-0.0004	-0.0079
79	_	0.0226	-0.0059	-0.0119	-0.0086	-0.0150
80	`	0.0031	0.0078	-0.0161	-0.0007	0.0049
81	{	-0.0407	0.0145	0.0159	-0.0219	-0.0004
82	|	-0.0083	-0.0291	0.0051	-0.0171	0.0205
83	}	0.0151	-0.0117	-0.0359	-0.0041	-0.0038
84	A	-0.0126	0.0279	-0.0006	-0.0011	-0.0009
85	B	0.0103	0.0065	-0.0061	0.0067	0.0167
86	C	0.0026	-0.0134	-0.0045	-0.0087	-0.0078
87	D	0.0081	-0.0009	0.0337	0.0124	0.0020
88	E	7.1E-0005	0.0073	0.0120	0.0090	-0.0121
89	F	-0.0028	0.0063	-0.0150	-0.0154	-0.0234

	PLOT	AXIS 56	AXIS 57	AXIS 58	AXIS 59	AXIS 60
1	A	0.0075	-0.0222	0.0055	-0.0028	-0.0046

2	B	-0.0189	0.0389	-0.0140	0.0051	0.0049
3	C	0.0160	-0.0162	0.0095	-0.0005	-0.0003
4	D	0.0038	-0.0067	0.0030	-0.0016	-0.0001
5	E	-0.0175	0.0139	-0.0103	-0.0016	-0.0011
6	F	0.0129	-0.0136	0.0083	0.0026	-0.0005
7	G	-0.0017	-0.0009	0.0008	-0.0091	0.0032
8	H	-0.0038	0.0089	-0.0037	0.0061	-0.0031
9	I	0.0096	-0.0073	-0.0120	-0.0169	0.0300
10	J	-0.0133	0.0071	0.0128	0.0066	-0.0151
11	K	-0.0093	-0.0481	0.0091	0.0043	0.0095
12	L	-0.0060	-0.0139	0.0059	0.0101	0.0013
13	M	0.0210	0.0075	0.0167	-0.0089	-0.0072
14	N	-0.0003	0.0125	-0.0323	0.0021	-0.0016
15	O	-0.0229	0.0165	0.0397	-0.0066	0.0076
16	P	0.0102	0.0102	-0.0067	0.0181	0.0057
17	Q	0.0044	-0.0107	0.0002	-0.0042	0.0093
18	R	-0.0120	0.0005	-0.0003	0.0045	-0.0153
19	S	-0.0163	-0.0162	-0.0253	-0.0033	-0.0075
20	T	0.0064	0.0197	0.0047	-0.0013	0.0004
21	U	-0.0021	0.0091	0.0229	-0.0022	-0.0111
22	V	-0.0148	-0.0219	0.0231	-0.0040	0.0035
23	W	0.0138	-0.0092	0.0024	-0.0034	0.0013
24	X	-0.0110	0.0200	-0.0070	0.0048	0.0012
25	Y	0.0433	-0.0041	0.0020	-0.0055	-0.0013
26	Z	-0.0167	0.0163	-0.0078	0.0139	0.0177
27	a	-0.0125	0.0194	-0.0094	-0.0053	0.0087
28	b	0.0092	-0.0151	-0.0192	0.0074	-0.0080
29	c	0.0120	0.0138	0.0046	-0.0038	-0.0109
30	d	-0.0029	0.0015	-0.0089	0.0040	-0.0114
31	e	-0.0004	0.0039	-0.0378	-0.0101	-0.0035
32	f	0.0264	0.0041	0.0037	0.0043	-0.0146
33	g	0.0050	-0.0083	0.0228	0.0061	0.0045
34	h	-0.0325	0.0021	0.0065	-0.0051	-0.0039
35	i	-0.0239	-0.0137	-0.0024	0.0091	0.0024
36	j	0.0213	-0.0121	-0.0039	0.0088	0.0053
37	k	-0.0043	0.0147	0.0189	-0.0112	-0.0002
38	l	-0.0319	-0.0068	0.0040	0.0167	-0.0034
39	m	0.0147	-0.0147	-0.0099	-0.0085	-0.0084
40	n	-0.0118	-0.0073	-0.0173	-0.0142	0.0113
41	o	0.0035	0.0114	0.0182	-0.0177	0.0034
42	p	0.0283	0.0093	-0.0083	0.0021	0.0080
43	q	0.0195	0.0064	-0.0003	-0.0025	0.0067
44	r	0.0055	0.0029	0.0242	0.0170	-0.0005
45	s	0.0023	-0.0158	0.0035	0.0019	0.0054
46	t	-0.0104	0.0055	-0.0150	-0.0055	-0.0168
47	u	0.0039	-0.0021	0.0155	-0.0142	-0.0084
48	v	0.0088	-0.0101	0.0018	-0.0096	0.0038
49	w	0.0255	-0.0053	-0.0166	0.0052	-0.0152
50	x	0.0007	0.0064	0.0015	-0.0062	-0.0004
51	y	-0.0050	0.0031	-0.0089	0.0121	0.0090
52	z	-0.0051	-0.0317	-0.0073	0.0236	0.0060
53	!	-0.0153	-0.0057	-0.0011	-0.0080	0.0019
54	"	-0.0051	0.0005	0.0102	0.0080	0.0107
55	#	-0.0063	0.0088	-0.0029	-0.0303	0.0053
56	$	-0.0069	0.0003	-0.0058	0.0044	-0.0100
57	%	0.0120	0.0280	0.0105	0.0018	0.0003
58	&	-0.0028	0.0019	-0.0135	-0.0205	-0.0250
59	'	-0.0003	-0.0024	0.0057	0.0154	-0.0049
60	(	0.0153	0.0104	0.0031	-0.0041	0.0161
61	)	0.0254	-0.0045	-0.0192	0.0105	0.0122

62	*	-0.0042	0.0207	0.0038	0.0104	0.0035
63	+	-0.0050	-0.0004	-0.0075	0.0067	0.0244
64	,	-0.0059	0.0045	-0.0202	0.0117	-0.0027
65	-	-0.0219	0.0044	0.0087	-0.0038	-0.0044
66	.	0.0035	0.0215	0.0124	0.0109	0.0042
67	/	-0.0123	-0.0139	-0.0078	0.0022	0.0092
68	:	0.0110	0.0014	0.0149	0.0104	-0.0202
69	;	-0.0035	0.0004	0.0006	0.0076	-0.0082
70	<	-0.0109	-0.0319	0.0018	-0.0214	-0.0102
71	=	0.0121	-0.0066	0.0072	-0.0081	0.0062
72	>	-0.0036	-0.0039	0.0054	-0.0223	-0.0248
73	?	0.0041	0.0104	-0.0057	-0.0026	-0.0059
74	@	-0.0091	0.0026	-0.0060	-0.0085	0.0147
75	[	-0.0123	-0.0253	0.0184	0.0072	0.0085
76	\	0.0151	0.0074	-0.0008	0.0023	-0.0020
77	]	-0.0057	0.0144	-0.0012	0.0064	0.0142
78	^	0.0104	0.0087	-0.0020	0.0118	-0.0133
79	_	-0.0021	0.0053	0.0071	-0.0090	0.0039
80	`	-0.0110	-0.0016	0.0072	0.0070	-0.0089
81	{	0.0142	-0.0060	-0.0291	-0.0112	0.0068
82	|	-0.0026	-0.0046	-0.0187	0.0209	-0.0149
83	}	-0.0005	0.0001	0.0036	-0.0209	0.0013
84	A	0.0287	0.0099	0.0165	0.0134	0.0028
85	B	-0.0120	-0.0042	-0.0026	0.0009	-0.0038
86	C	-0.0104	-0.0023	-0.0060	0.0085	-0.0108
87	D	0.0085	-0.0044	0.0097	0.0083	0.0073
88	E	0.0033	0.0015	0.0011	-0.0174	0.0163
89	F	-0.0222	0.0032	-0.0050	-0.0090	0.0043

	PLOT	AXIS 61
1	A	0.0042
2	B	-0.0052
3	C	-0.0018
4	D	0.0016
5	E	0.0026
6	F	-0.0008
7	G	0.0035
8	H	-0.0053
9	I	0.0047
10	J	0.0022
11	K	0.0083
12	L	-0.0029
13	M	0.0070
14	N	-0.0004
15	O	0.0052
16	P	-0.0027
17	Q	0.0088
18	R	0.0013
19	S	0.0029
20	T	-0.0044
21	U	-0.0070
22	V	0.0060
23	W	-0.0105
24	X	-0.0057
25	Y	0.0006
26	Z	0.0051
27	a	0.0070
28	b	-0.0157
29	c	0.0161

```
30      d    -0.0019
31      e    -0.0025
32      f    -0.0011
33      g     0.0057
34      h    -0.0080
35      i     0.0032
36      j    -0.0077
37      k     0.0041
38      l     0.0074
39      m    -0.0004
40      n     0.0098
41      o    -0.0114
42      p    -0.0073
43      q     0.0050
44      r    -0.0024
45      s    -0.0027
46      t     0.0014
47      u    -0.0076
48      v    -0.0007
49      w     0.0073
50      x     0.0044
51      y     0.0007
52      z    -0.0090
53      !    -0.0011
54      "     0.0036
55      #     0.0040
56      $     0.0035
57      %     0.0084
58      &     0.0001
59      '    -0.0043
60      (    -0.0088
61      )     0.0008
62      *    -0.0005
63      +     0.0026
64      ,     0.0042
65      -    -0.0144
66      .     0.0009
67      /    -0.0045
68      :    -0.0040
69      ;    -0.0024
70      <    -0.0025
71      =     0.0086
72      >    -0.0024
73      ?    -0.0074
74      @     0.0004
75      [    -0.0030
76      \     0.0049
77      ]    -0.0080
78      ^     0.0101
79      _     0.0040
80      `    -0.0008
81      {    -0.0027
82      |     0.0045
83      }    -0.0067
84      A     0.0034
85      B    -0.0013
86      C     0.0253
87      D    -0.0177
88      E     0.0082
89      F    -0.0158
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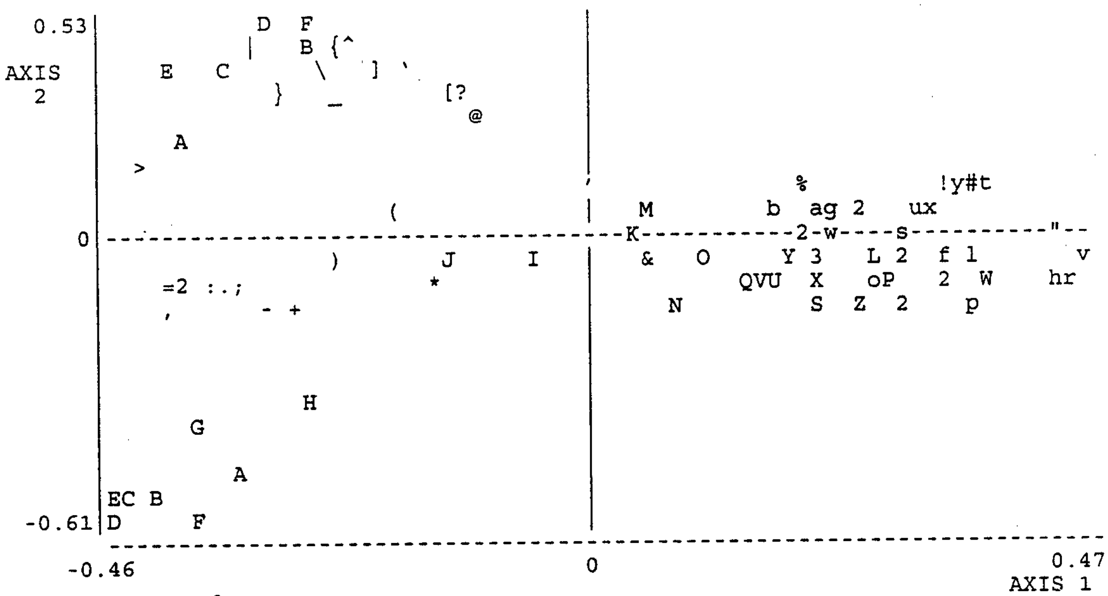
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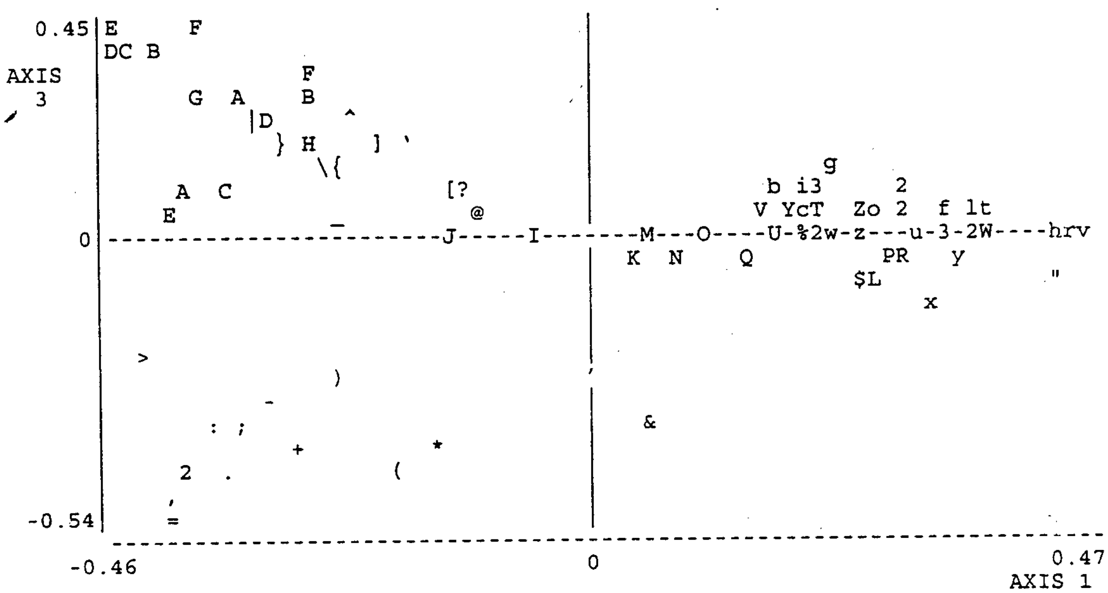
AXIS 1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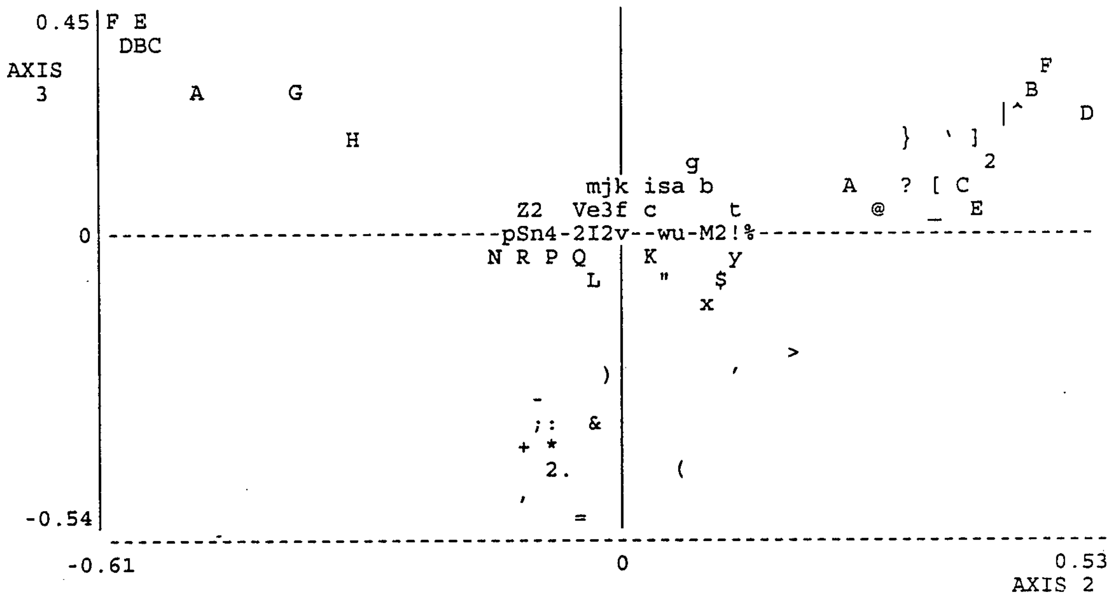
AXIS 1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AXIS 3
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-0.61
0
0.53
AXIS 2

APPENDIX D
SPECIES COMPOSITION AND ABUNDANCE ALONG THE LTER TRANSECT

Species Composition and Abundance along the LTER Transect													
Station	*CnTe*	*CnTi*	*CnUn*	*CrCo*	*EuOb*	*HoMa*	*PhCo*	*PhMo*	*Uta*	*ScMa*	*ScUn*	*Species Number*	*Total Lizards*
1									3			1	3
2												0	0
3												0	0
4												0	0
5							1					1	1
6												0	0
7												0	0
8	1	2	1									3	4
9	1	5					1		4			4	11
10		2							1			2	3
11		1		1					3			3	5
12	3			1			1	1	1			5	7
13	1	1		1					1			4	4
14	1	1					1		2	1		5	6
15	1	3							2			3	6
16	3	5										2	8
17	3	5					1		1			4	10
18		3				2						2	5
19	3	4		1								3	8
20	3	4					1		1			4	9
21	2	5					1					3	8
22	1	10		1				1				4	13
23		3					1		2			3	6
24		3					2		3			3	8
25	3	7					1					3	11
26	3	2		1			1	1	1			6	9
27		1		1				1				3	3
28	1	2						1	3			4	7
29		1		1					2			3	4
30		3										1	3
31	3	8							1			3	12
32		6							2			2	8
33	2	1					1		1			4	5
34		1		5								2	6

35		3		1								2	4
36		3		2		2		1				4	8
37	2	1		3					1			4	7
38	1			1			1	1	2			5	6
39	1	2										2	3
40	2	1		1				1	2			5	7
41		4		3				2	2			4	11
42	1	7		1		1			3			5	13
43	4	6		1								3	11
44	1	4										2	5
45	1	5	1						1			4	8
46	1	5							3			3	9
47		7							3			2	10
48												0	0
49	1	3		1					3			4	8
50		2			1				4			3	7
51		7							3			2	10
52		4		2			1		2			4	9
53		4		2	1		2		2			5	11
54	1	9		1			2		3			5	16
55	6	4					3	1	6			5	20
56	2	4							1			3	7
57		5		1								2	6
58	2	5		2					10			4	19
59		3			1				7	2		4	13
60	1	5		1					2			4	9
61		5					1		3			3	9
62	2	5		1			1		4			5	13
63	2	2	1	1					2			5	8
64	1	1					1		14			4	17
65	2	2					1		3			4	8
66	1	9			1		1		5		1	6	18
67	1	9		1					5			4	16
68	2	8							1			3	11
69	1	6							3			3	10
70		3		1				1	1			4	6
71	2	3			3		1		9	1		6	19
72	1	4							2	1		4	8

73		2							4			2	6
74		4		1	2				3	2		5	12
75	1	3	1						1		1	5	7
76		3		1	1				3			4	8
77		2	2	2	1				1			5	8
78			2	4	2				1			4	9
79	1	3	1	1					1			5	7
80	1		1	3	1	1			4			6	11
81	1	2		2	1							4	6
82			2						1			2	3
83	1		2	1								3	4
84					9							1	9
85			1									1	1
86			2		1							2	3
87			2		4				1			3	7
88			1		4							2	5
89			2	2	1							3	5
90					7				3			2	10
												Total	694